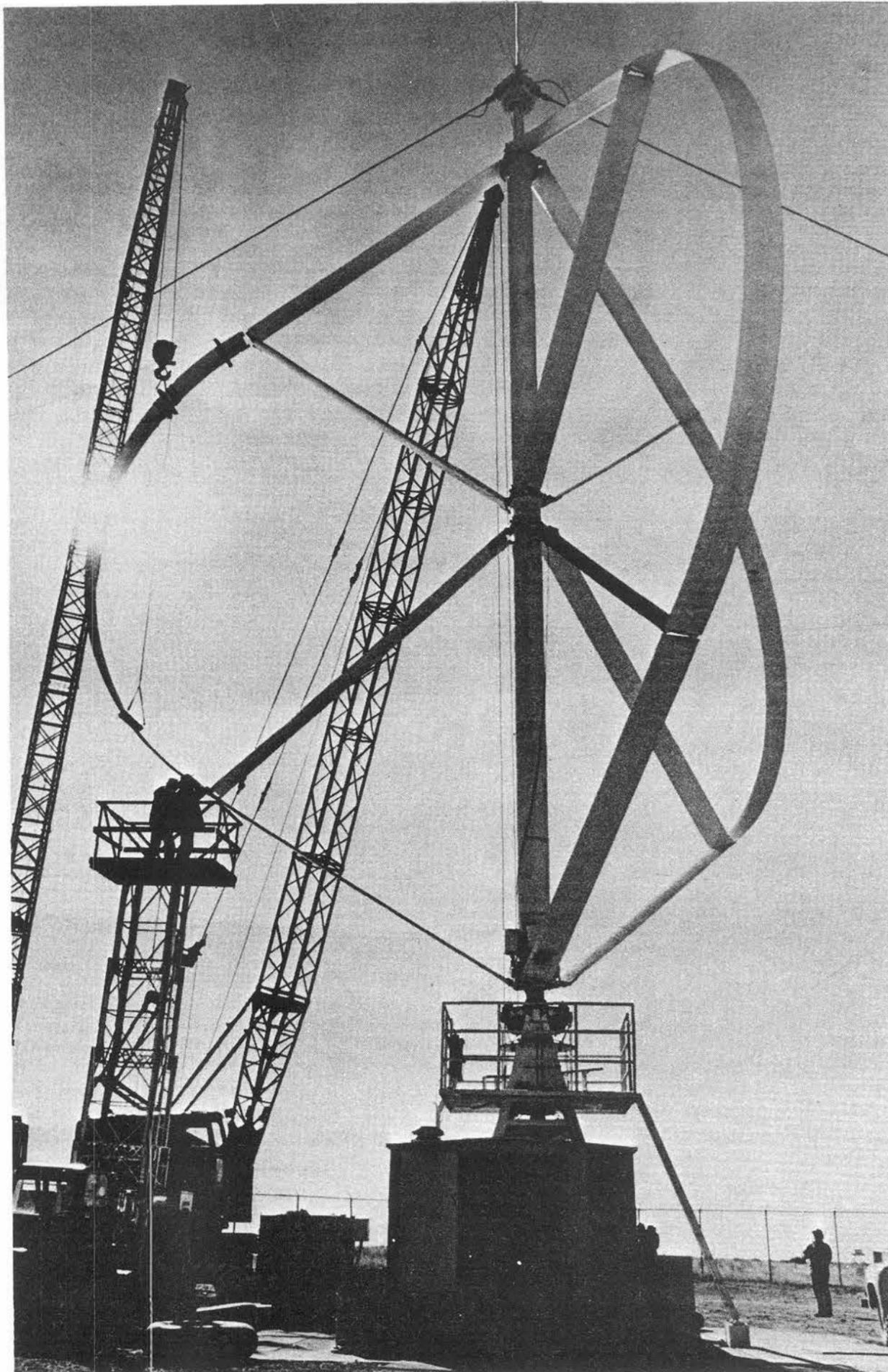
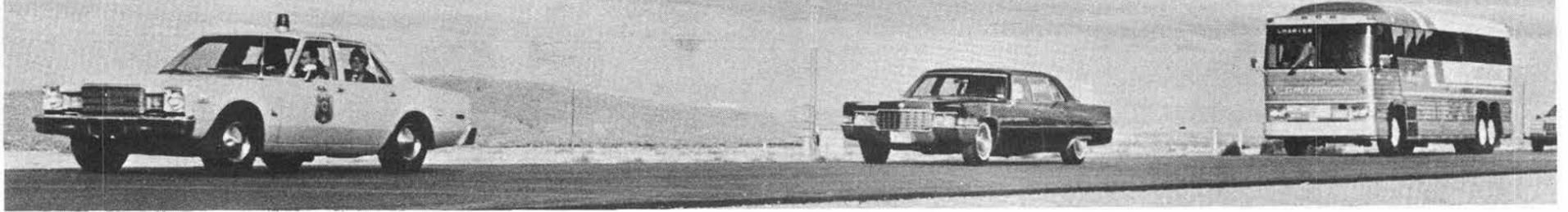


**VP Mondale Visits Labs
See Page Four**

LAB NEWS

VOL. 30, NO. 2 JANUARY 20, 1978



A NEW PHASE of testing starts at Sandia's Vertical Axis Wind Turbine Facility with the addition of a third blade. Men of Maintenance Divisions 9718 and 9713—Tom Sanchez, Woody Edwards, Al Santistevan, Frenchie Sonnier and Lloyd Kelton—handled the heavy equipment.

Third Blade Added to VAWT

Nine months of testing in a two-blade configuration was completed recently at Sandia's experimental vertical axis wind turbine (VAWT). A third blade has been added to the eggbeater-shaped machine, and the project now moves into a new phase of testing.

"So far, the VAWT is performing up to expectations," says Emil Kadlec of Advanced Energy Projects Division 5715, project engineer. "With two blades the VAWT produces 45 kW in a 33 mph wind. With the third blade we expect to increase output to 60 kW in winds around 30 mph."

The VAWT has undergone intensive engineering analysis. Performance has been measured at various rpm under a wide range of wind conditions (gusts up to 60 mph). Vibration, tension, torque, blade fatigue and other measurements have been made. An analytical model has been developed.

"We are more experienced," Emil says, "and better equipped. With the windy season approaching, we expect to move rapidly in this new phase of the project. After these three blades are tested, we'll test a completely new blade design fabricated from extruded aluminum. The current blades were fabricated from fiberglass and aluminum and have external bracing (struts). The new design, with the airfoil width increased from 21 to 24 inches will not be externally braced. They should be ready in the fall."

Emil reports that the remaining questions are economic. "It's not an engineering question of two blades vs three," he says. "What's important is total blade area and how to achieve maximum performance at the lowest cost."

Power output currently produced by the VAWT is fed directly into the KAFB power grid. Its electrical system produces 60-cycle alternating current. The turbine airfoils automatically stall at high wind speeds so that the VAWT will not produce more power than the generator rating under any wind condition.

Sandia's goal in the VAWT project is the development of technology leading to design of high-strength, long-life, low-cost wind machines which can be produced and marketed by private industry. The work is funded by DOE's Wind Energy Branch.

Afterthoughts

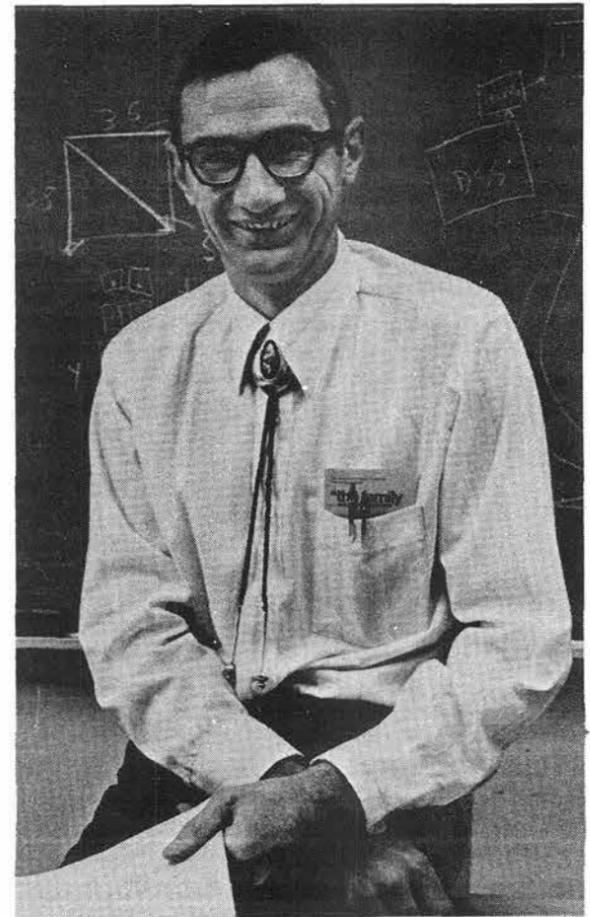
For this we should pay?--Movie houses have launched a new assault on us once we're inside: commercials. It goes against my grain just to have to pay three bucks to see a film nowadays. But to have to sit and listen to some turkey talking about a deodorant or some such tasteful subject is really too much. I plan to stomp my feet and whistle--movie fans unite!

Dept. of new coinage--From Focus: "It (a MAC regulation) states that Distinguished Visitors ... may be antihijack-cleared on their own recognition." Do you suppose there's a prohijack clearance as well? Anyway, you have to be at least a general to proclaim your own antihijack clearance, which simply shows, once again, that generals have fun too.

Eyeball to eyeball?--We thought this ad in last week's Journal had a certain flair: "For Sale--one double crypt at Chester French Mausoleum. Choice location (at eye level). At considerable savings. Phone _____."

Consumer tip--After three or four letters to Time's subscription department, trying to settle a subscription foul-up, with no reply except more of the same form letters that threatened cancellation if I didn't pay up, I hit upon use of a different tactic--certified mail. You address the thing to Mr. Big, he has to sign for it, and this generally insures that he not only gets it but reads it. Certified mail costs a buck or so, and the Post Office returns to you the receipt bearing the signature of Mr. Big. It works--I'm still receiving Time, and the threatening letters have ceased.

"So get a few laughs and do the best you can. Don't have an ideal to work for. That's like riding towards a mirage of a lake. When you get there it ain't there. Believe in something for another World, but don't be too set on what it is, and then you won't start out that life with a disappointment. Live your life so that whenever you lose, you are ahead."
Will Rogers, by Betty Rogers, his wife *js



IVAN WADDOUPS (1763)

Supervisory Appointment

IVAN WADDOUPS to supervisor of Security Systems Integration Division 1763, effective Jan. 1. Since coming to Sandia in 1966, Ivan's work has been with space nuclear power, PAL development and, more recently, with Safeguards systems. Primary responsibilities of his new division will be the development, application and integration of security systems throughout DOE agencies.

Ivan earned BS and MS degrees in EE from Utah State University. Under Sandia's TDP program he did post-graduate work at UNM. His interests off the job include activities of his church, gardening, the addition to his home which he and his family have undertaken, and raising cattle. Ivan and his wife Annette have five children and live east of Los Lunas at Valencia.

A Matter of Degree

These Sandians recently completed degree requirements under the Labs' Educational Aids Program:

Charles Albright (9573)	PhD in Material Science	UNM
Felix Almaraz (4123)	Masters in Bus Admin	NMHU
Jerry Soden (1221)	Masters in Elec Engr	UNM
Ronald Coonen (3430)	Bachelors in Criminology	UofA
Tom Cordova (3441)	Bachelors in Bus Admin	UofA
James Dalton (9658)	Bachelors in Math	UofA
Judy Tripp (9424)	Bachelors in Bus Admin	UofA
John Trodden (2154)	Bachelors in Accounting	UofA



A century from now, the Smithsonian Institute plans a display on women's status in the 20th Century. Edith Mayo, curator of women's history at the Smithsonian, collected part of the display material at the Women's National Conference in Houston last November. Her treasure trove included 175 political buttons, of which her personal favorites were these: "My Consciousness Is Fine; It's My Pay That Needs Raising"; "Teaching Is Not A Secondary Female Characteristic"; "An All-Male Senate Leads to a Stag-Nation."

Credit Union Reporter

by Marvin Daniel, Vice President

DIVIDENDS

Credit Union dividends are paid quarterly and posted to member accounts on the first day of each quarter. Dividends are calculated as follows:

1. Deposits made on or before the 10th of any month earn dividends for the entire month.
2. Deposits made after the 10th receive no dividends for that month.
3. Dividends are paid on fully paid up shares only (multiples of \$5.00).
4. Shares withdrawn during the quarter earn no dividend. An example of dividend calculation (based on a 6.5% annual rate, 1.625% per quarter):

Share balance July 1	\$1,000
Deposit July 25	100
Deposit August 15	100

Deposit September 9 200

Dividend = $0.01625 [\$1,000 + \$100 (\frac{2}{3}) + \$100 (\frac{1}{3}) + \$200 (\frac{1}{3})] = \$18.96$ (posted to account Oct. 1).

The dividend rate is not guaranteed and is declared by the Board of Directors for each quarter depending upon income from Credit Union operations. For the past fourteen quarters, the regular dividend paid has been at 6.5% annual rate.

REMINDER

The Credit Union's 30th annual meeting will be held at the Coronado Club starting at 5:15 p.m., Jan. 26. Following the business meeting, drawings will be held for three cash share deposits: \$500, \$300, and \$200. All regular members on that date who were members as of December 31, 1977, are eligible. You do not need to be present to win.

LAB NEWS

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so does russell smith

bruce hawkinson & lorena schneider report livermore

Labs Research Praised by GM

An informal combustion research program involving SLL, LLL, LASL, Princeton, and General Motors should serve as a model for research in other automotive areas. That's the recommendation GM recently made to the DOE.

GM's letter to Secretary Schlesinger follows a visit GM Executive VP Howard Kehrl made in October to SLL's combustion research labs and to LLL. The letter points out that the nation's energy conservation efforts would benefit from early, that is, planning stage, cooperation between the automotive industry and the federal and university research community.

Specific areas for cooperative research that GM mentions are combustion, catalysis, electrochemistry, materials, alternate fuels, and societal problems (such as traffic control and urban design).

GM goes on to list the unique contributions of each of the principals in the combustion program: "The computer modeling expertise at Lawrence, the diagnostic technique capability at Sandia, the numerical methods expertise at Los Alamos, the experimental engine experience and capability at GM and the combustion modeling at Princeton have complemented one another remarkably in leading to a better understanding of this very complex combustion process." The letter also mentions the Motor Vehicle Manufacturers Association funding of part of Sandia's work as an indication of its potential value.

Says Dan Hartley, manager of the Combustion Sciences Department 8350, "We knew that we and the other members of the group had made significant advances in understanding the combustion process, but it's gratifying to have GM suggest that the group should become a model for research in other areas."

R E T I R I N G



Russ Richards (8424)



Dick Jacobson (8123)



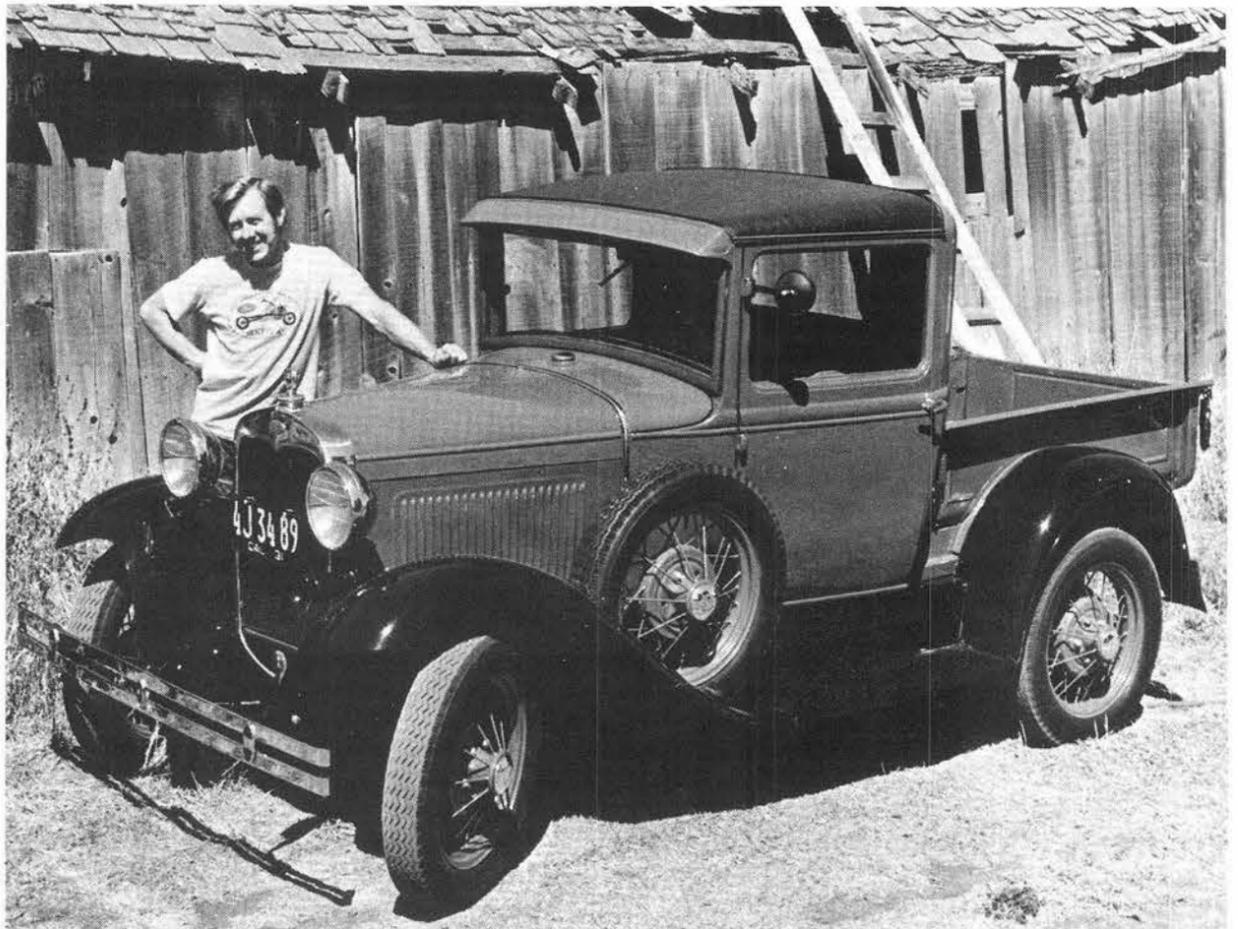
Ray Faltings (8346)

LIVERMORE NEWS

VOL. 30, NO. 2

LIVERMORE LABORATORIES

JANUARY 20, 1978



GSA, TAKE NOTE—It gets 20 mpg and cost only \$215 and a six-pack. Of course, Jim Boehmke (8423) spent a few more bucks for the finishing touches....

Model A Enthusiast—Jim Boehmke

"It was a 2000 hour, \$2000 job," says Jim Boehmke (8423), referring to his 1930 red Model A Ford pickup truck which took two years of his spare time to restore. "Model A's were produced only between 1928 and 1931 and are considered classier and more dependable than the Model T, the car that put this country on wheels after its introduction in 1908," he explains.

Jim bought his Model A pickup in Oakland for \$215 and a six-pack. For years it had been sitting in the same spot where every kid who walked by winged a rock at it. The rain and elements had completely rotted the body, the rear end was blown up, transmission wrecked, gears stripped and engine frozen.

After trailering the pickup home, Jim totally dismantled it and then began the slow job of putting everything back together, piece by polished piece. In six months the chassis was completed, including rebuilt engine, clutch, transmission, brakes and wheels, but body work took another year and a half.

"Because I couldn't seem to get good information from anyone, I had to learn everything from books as I went along," says Jim. "Even my laser and electron beam welding experience at Sandia didn't prove helpful since this was gas type welding. Forming a club where we could help each other seemed the best solution, so I was instrumental in organizing 'Henry's A's,' a local chapter of the Model A Ford Club of America."

Jim served as president the first year and vice president the second year. The family-oriented club has grown from the original seven family members to over 40.

Jim's pickup is authentic to the last detail except for the mechanical brakes which he's changed to hydraulic. He estimates that today the restoration would run close to \$3500.

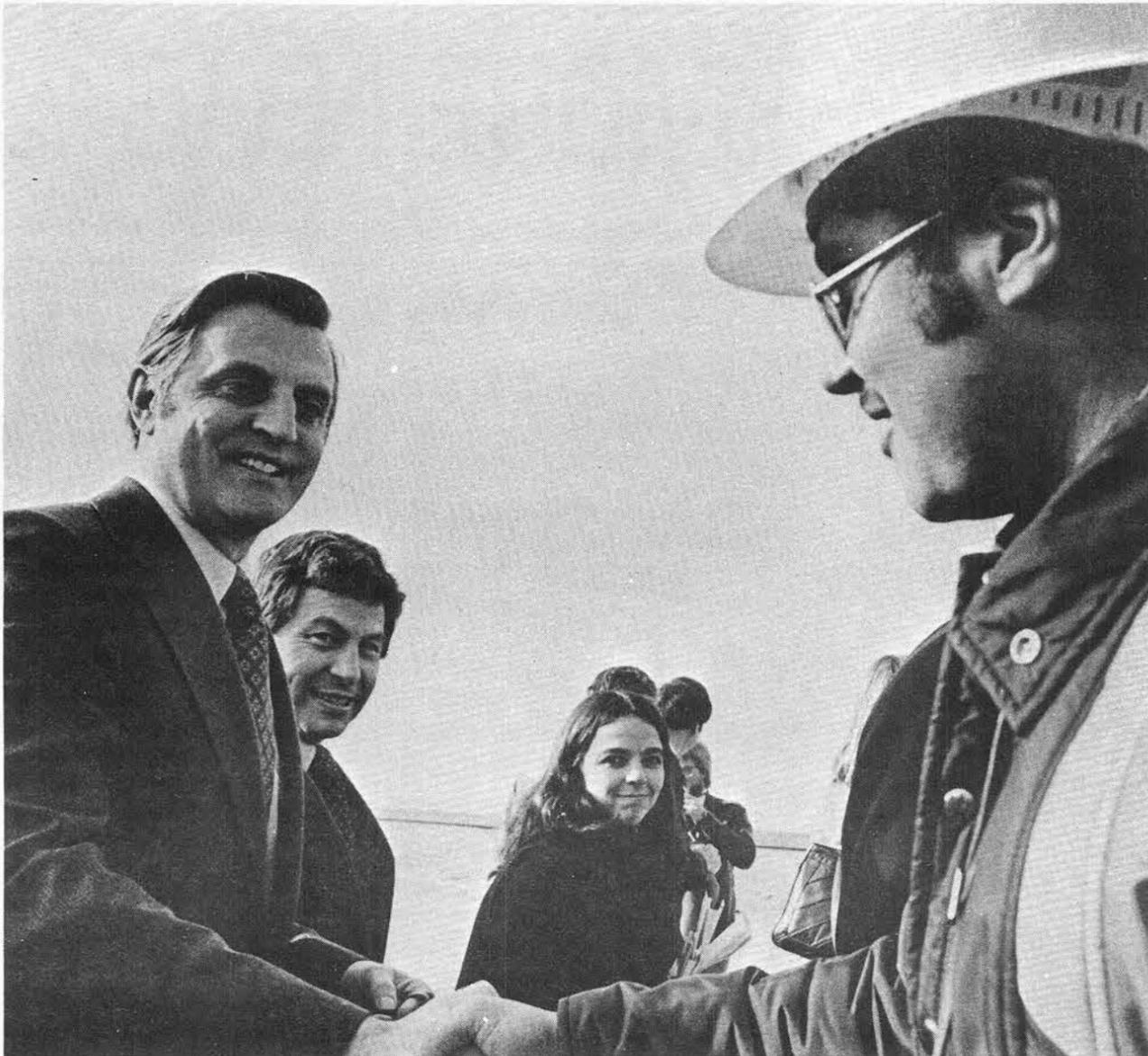
Driving at 50 miles an hour, Jim figures gas mileage near 20 miles to a gallon. And he's putting on plenty of miles—a trip to Vail, Colo., for the Mile-Hi Chapter's High Country Tour get together, plus numerous club events within a 300-mile radius of Livermore. Many club members enjoy wearing clothing from the Model A period, and recently Jim's wife took best of show for her attire at a meet in Bend, Ore.

Jim notes that the club is a social group as well as a single purpose organization, and anyone is welcome to attend monthly local meetings—owning a Model A is not a requirement. For more information, call him on 447-6670.

Currently, Jim is restoring a 1931 black Model A Ford Tudor sedan purchased from a co-worker. "I'd like to own three or four, as would most Model A enthusiasts," comments Jim, "but with only a two-car garage, that's not too practical."

Sympathy

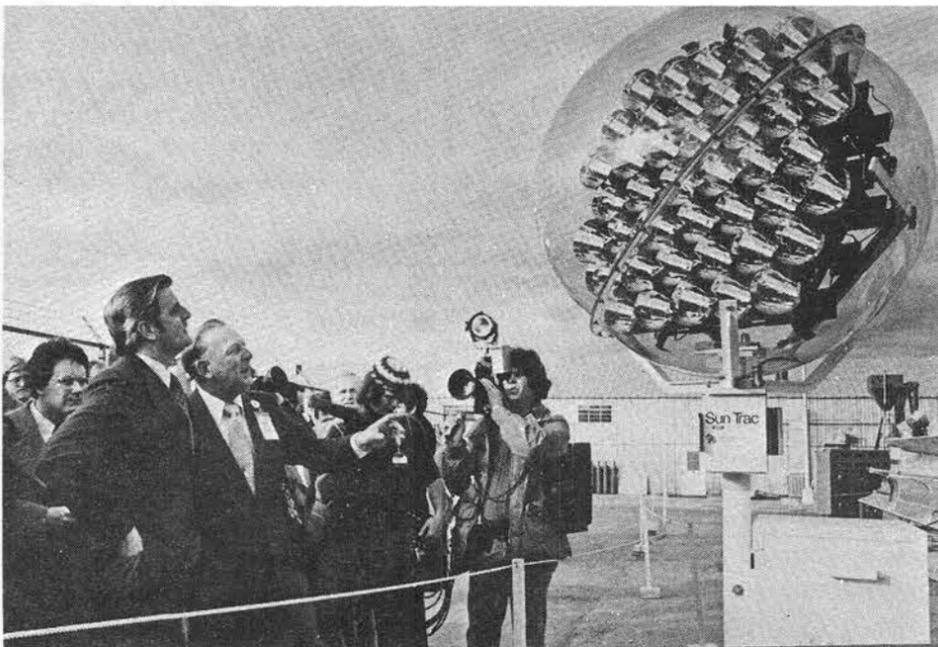
To Gene Springer (8327) on the death of his father-in-law in Miami, Okla., Jan. 1.



VP Mondale Visits Labs

The sun shone on Jan. 10, a good thing because that's the day Vice President Mondale came to see Sandia's solar facilities. In one hour the VP and an entourage of sixty or so reporters, secret service agents, other VIP's and aides managed to cover the solar facility near Tech Area I, the wind turbine, and the central solar test facility (power tower) south of Area III.

Left, a smiling VP and Governor Apodaca chat with Joe Vigil (5713) near the power tower. Below left, DOE/ALO Manager Herm Roser describes photovoltaic array. At right, a few more handshakes with workers in heliostat area—Bill Zagar (9658), Ray Hinds and Terry Koontz (both 9344), Bob Edgar (5713) and Dave Darsey (9344). Below, the VP with President Sparks, Herm Roser, Governor Apodaca and Senator Domenici. The tall man behind Mr. Roser is Secretary of the Interior Cecil Andrus, who accompanied Mr. Mondale on his western trip.



20K-RPM Test Method Developed

As any laundromat customer knows, an off-balance load of wet clothes will rock a washing machine from side to side at the beginning of a spin cycle. As the basket picks up speed, spinning up to some 1700 rpm, the machine begins to pound and bound—intent (or so it seems) on self destruction.

Which begs the question of what possible connection there is between Sandia Labs and the spin cycle (un-balanced or otherwise) of a washing machine.

Jim Kannolt (2533), designer of test equipment for electromechanical components, will tell you there is indeed a connection. He'll also tell you that washing machine designers don't know how lucky they are.

"I've got all their problems," Jim says, "plus a few that would give them more sleepless nights than ring around the collar."

For example: "Imagine that the basket is spinning not at 1700 rpm but 20,000 rpm—and that at top speed the evenly distributed load is suddenly blown apart by an explosion which causes violent and uneven shifts in weight inside the basket.

"Visualize the mechanical pandemonium—the rending and tearing of the basket, the shaft, the housing. Not to mention the shrapnel scattered over half a country mile."

For a washing machine, the example Jim gives sounds far fetched but, in principle, it was exactly the kind of situation he faced in designing a test system to simulate the spinning environment of a nuclear artillery shell.

Jim's supervisor, John Walter (2533), puts it this way: "High spin rates put high g-loads on components—components that must operate while spinning. You could check component operation by firing test rounds from artillery pieces. But that's prohibitively expensive and a difficult situation in which to gather performance data. Then there's the problem of production line testing."

For laboratory testing, spinning the units up to the required speed was possible with commercially available hardware, so the first difficult problem was how to get data on component performance out of the spinning assembly.

"We looked at both telemetry and slip rings," Jim says, "and settled on fluid cooled and lubricated slip rings. They were cheaper and simpler to adapt—and they required less auxiliary instrumentation."

When an exploding neutron generator was chosen for the W-79, Jim's job became more difficult. Chuck Spencer (2351) asked him to adapt his spin tester to handle explosive components.

"Our solution," Jim says, "was to put the test units in a rotor which sits on a 1/4-inch diameter steel quill shaft—an arrangement that looks a little like the balancing trick with a spinning plate at the end of a stick—except in this case, the shaft and rotor rotate together.

"The quill-shaft is self-centering, which compensates for initial and post-explosion



JUST BEFORE THE EXPLOSION. Jim Kannolt (2533), designer of a test system to simulate the high spin environment of a nuclear artillery shell, installs a rotor containing an exploding neutron generator. To compensate for initial and post-explosion imbalances, the rotor sits on a self-centering quill shaft. Plastic and metal foams inside the rotor mitigate shock and trap and hold shrapnel.

imbalances in the rotor. We minimize the imbalance as much as possible by using plastic and metal foams to mitigate shock and trap and hold the shrapnel.

"For safety, the tests take place in a steel cylinder mounted inside a steel chamber. Together, these cylinders will absorb up to one million foot pounds of energy—enough cushion for any type of rotor failure."

At the request of SLL, Jim also adapted his system for the explosive testing of the W-79 fire set (the responsibility of Don Bohrer's Division 8167 at Livermore), which contained a larger explosive charge than the neutron generator. Weapon Systems Director Leo Gutierrez (8100) commented on Jim's work in a memo to the director of 2500, Jim King:

"Jim Kannolt's efforts in the design and fabrication of a fixture to not only contain the blast effects of the explosive but to maintain fixture balance after firing to within acceptable limits are to be commended. Not only is the job of testing components made easier, but there is a savings amounting to several hundred thousand dollars."

The result of Jim's design efforts (and he gratefully acknowledges a long list of contributors in 2351, 2513, 2514, 8166, 8167, 8185, 8413 and 9654) is a test system that meets its goals in both non-destructive and destructive modes. Responsibility for the design and final implementation of the spin test system for the W-79 fire set is assigned to John Anderson's Acceptance Division 8166 at Livermore.

Events Calendar

Jan. 20-22—"Medea," Popejoy Hall, Classics Theatre Co.

Jan. 21—"Carousel," KHFM 96.3, 6:30 p.m.

Jan. 23—Albuquerque Philharmonia Orchestra concert, U of A Stage II, 8:15 p.m.

Jan. 28, 29—"Snow White," Albuquerque

Children's Theatre, Popejoy Hall, 1:30 and 3:30 p.m.

Jan. 28—"The Magic of Venice," travel film, Popejoy Hall, 7:30 p.m.

Jan. 30—"Jury's Cabaret," UNM Cultural Program Committee Celebrity Series, Popejoy Hall, 8:15 p.m., 277-3121.

Sandia Develops High Temperature Logging Device

A logging instrument for geothermal wells was recently tested successfully at a LASL well in the Jemez Mountains. The instrument operates over a continuous temperature range from ambient to 300°C (575°F).

Fielded by Geothermal Technology Division 5736, the device was lowered by cable 2650m (8700 ft.) into the dry hot rock of LASL's GT2 well, located a few miles north of Jemez Springs. The instrument measured temperatures up to 175°C.

"Logging geothermal wells is at best an imprecise business," says Tony Veneruso, Division 5736 supervisor. "While the petroleum industry has developed considerable logging technology over the past 50 years, much of it is not directly transferrable to geothermal wells. In the first place, geothermal wells have much higher temperatures and pressures than oil wells—up to 275°C (527°F) and 48.3 Pa (7000 psi). Also, geothermal wells typically are drilled into metamorphic or igneous rocks while petroleum is usually found in sedimentary formation."

Sandia's logging instrument was developed by a team headed by designer Dave Palmer (2151). The electronic circuitry of the instrument has been tested successfully in the laboratory at 300°C for more than 100 hours. Junction field effect transistors and hybrid thick film circuits, specially selected and fabricated, are used.

In addition to temperature, other instruments to sense pressure and flow are under development. Eventual goal is a device capable of simultaneously reading temperature, pressure and flow rates. As development progresses, the technology is being transferred to private industry. A number of logging companies are involved.

"Currently, there's great interest in the energy potential of geothermal wells," Tony says. "New power generating plants are under construction at the Geysers site (north of San Francisco) where we've had geothermal electricity since the mid-



FOR GEOTHERMAL WELLS—New logging instrument which measures downhole temperatures up to 300°C is displayed by Kyle White and Dave Palmer (both 2151). Two versions of the electronics have been tested—hybrid thick film technology (which Kyle holds) and a system using printed circuit boards.

1920's. The Geysers now produce 500 MW for San Francisco at reasonable rates. Within a few years, it will meet all of the power needs of San Francisco.

"The success of the Geysers operation has spurred others to look for potentially valuable sites. New logging instruments are vitally needed as more exploratory wells are drilled."

The mechanical components of the logging instrument were designed and fabricated by Gearhart-Owen Industries, a logging service company, in partnership with Division 5736. Division 5736 is responsible for DOE's Geothermal Logging Instrument Development Program.

Sandian Dies After Apprehending Burglar

Leyndal Wilson, an engineer in War Reserve Acceptance Division 9511, died Dec. 23 of a heart attack shortly after he helped police apprehend a burglar who was breaking into cars parked in the Winrock Shopping Center.



A member of HELP (Help Eliminate Local Problems), a group of CBER's, Leyndal was one of 200 volunteers who helped Albuquerque police patrol shopping center parking lots to cut down on holiday burglaries.

Leyndal, who was 54, recently celebrated his 25th anniversary with Sandia Labs. He was a Senior Member of the American Society of Quality Control and both a Certified Quality Engineer and a Professional Engineer. He is survived by his widow and three children.

Death

Alva Ayers of Mechanical Processes and Apprentice Training Division 9584 died Jan. 9 after a short illness. He was 61.

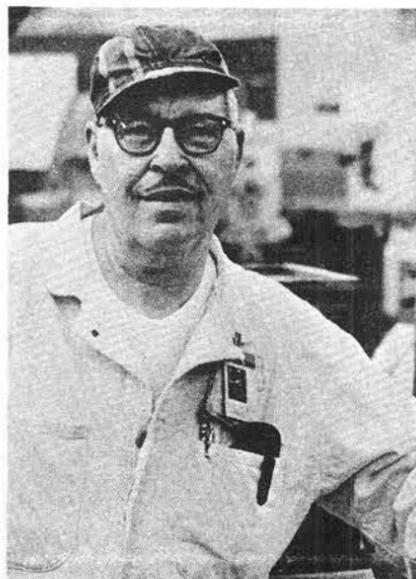
He had worked at the Labs since August 1953.

Survivors include his widow, four daughters and three stepsons.



In her book, *Women On Power*, author Jane Trahey lists several ways to safeguard an idea: "Don't offer good ones at meetings," she says. "And scream if you catch someone trying to kidnap one. Always document your brainchildren in writing, and, above all, don't discuss new ideas at lunch, dinner, breakfast or in bed." (And then, of course, there's the foolproof system: never have any.)

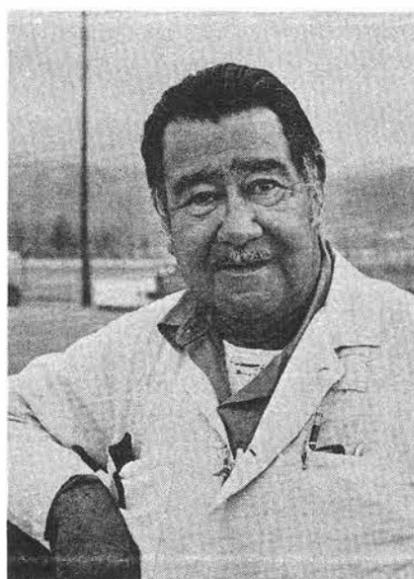
RETI R I N G



Frank Baros (9581)



Abelicio Molina (3423)



Herman Nieto (3421)



Dorothy Hummer (3735)

Take Note

Howard Shelton, head of Education & Training Division 3521, was recently elected National VP of the American Society for Training & Development for 1978-79. The Society is a professional educational organization concerned with development of human resources. Howard has been active with the group since 1962 and has held several local and national offices. In addition, he has served on a number of national committees and task forces.

* * *

About 500 persons from 25 countries are expected to attend the 5th international symposium on packaging and transportation of radioactive materials to be held May 7 to 12 in Las Vegas, Nevada. Bob Jefferson (5430) is general chairman. The symposium will cover virtually all facets of the transport and packaging of radioactive materials—the experiences of shippers, equipment design problems, government regulations, new technology, and forecasts of the industry's future. Sandia Labs is sponsor of the symposium.

* * *

Alan Swain, human factors specialist in Division 1222, recently conducted a series of workshops in Europe on "Human Reliability in Nuclear Safety" and "Estimating Human Error Rates and Their Effects on System Reliability." The sessions took place with members of European nuclear safety and regulatory agencies.

* * *

UNM is again sponsoring a 14-week course in conversational German for children ages 7 to 16. Classes for beginners and non-beginners meet once a week, 3:45 to 4:45 p.m., at the First Unitarian Church on 3701 Carlisle NE and the Asbury Methodist Church, 10,000 Candelaria NE. Classes are conducted in an informal setting, emphasizing conversation, games and songs. Cost is \$15, which includes text materials. Register by going to the Asbury Methodist Church on Jan. 23 or the First Unitarian Church on Jan. 24; or call Joan Winter on 294-1369.

* * *

The Albuquerque Civic Light Opera Association has announced its '78 program: *Oklahoma!* in March/April, *Fiddler on the Roof* in June/July, *Pippin* in Aug./Sept. and *Funny Girl* in Dec./Jan. You can make a considerable savings by subscribing for tickets to all four shows now. Call the ACLOA office on 344-2317 to get an order blank.

* * *

Albuquerque Artists I is the first in a series of exhibitions at the Museum of Albuquerque to feature contemporary arts by local and regional artists. The show runs from Jan. 21 through April 2. All the artists participating live and/or work in Albuquerque. Jim Walston of Tech Art Division 3155 is among the artists included in the show.



TRANSLATED, the smile and the legend mean that Wally Green (4335) is happy to be present at Bendix, Kansas City, as the first production units of the Mk 4 arming, fuzing and firing assembly came off the line at the scheduled time. Wally is mechanical design engineer responsible for packaging of the many components within the AF&F. Overall responsibility for the assembly is assigned to Bob Christopher's Mk 4 AF&F Systems Division 4335, as part of W76/Trident C4 program development. Wally's smile also says "Thanks" to the hundreds of Sandians who've had a hand in this activity since 1972.

Paul Standish of National Semiconductor will present a seminar on microprocessors and data acquisition from 8:30 to 11:30 a.m., on Tuesday, Jan. 24, in Coronado Club B-5.

* * *

Karen Shane in Community Relations Division 3163 is looking for Sandians who have works of art—paintings, prints, drawings and the like—that might be suitable for showing in the Bldg. 802 foyer art gallery. You don't have to have enough to fill the entire display, just one or two works of genuine merit. Idea is to hang a tasteful display for a few weeks. You can discuss the subject with Karen on 4-3268.

* * *

The IRS has opened a northeast heights office to help taxpayers. It's located in the Scottsdale Shopping Center at Eubank and Candelaria and is open Monday to Friday, 9:30 a.m. to 5:30 p.m. You can also call for help: 243-8461.

* * *

The Albuquerque Philharmonia Orchestra invites the public to a free concert on Monday, Jan. 23, at 8:15 p.m. Place: Stage II of the Fine Arts Center at U of A. The Philharmonia will play selections by Britten, Mozart and Gluck. A number of Sandians are members of the musical group.

* * *

In our last issue we listed a number of recycling centers, but failed to mention one that combines recycling with compassion: the Animal Humane Association, just outside the Wyoming gate at 615 Virginia Ave. SE. The Association accepts aluminum cans, newsprint and magazines

(bundled separately); proceeds go to help the assorted strays, mostly 4-legged, that the Association takes in. At this time of the year, AHA is again offering tax consultative service by expert John Chambers, who donates all his fees to the Association. Call AHA on 255-5523 to make a date with John.

* * *

Congress is taking a considerable interest in the Labs' energy projects, and the latest to visit Sandia is Rep. Carl Pursell of Michigan, who spent most of a Sunday here recently being briefed on solar, fusion, geothermal and wind turbine programs at Sandia. Congressman Pursell is on the House Committee on Science and Technology and its Subcommittee on Advanced Energy Technologies & Energy Conservation. He was accompanied by DOE's Larry Killion.

Congratulations

Mr. and Mrs. Doug Mahn (9332), a daughter, Carrie Sue, Dec. 26.

Mr. and Mrs. Bill Drotning (5842), a daughter, Elizabeth Anne, Dec. 22.

Sympathy

To Ivan Moore (1210), on the death of his father in Iowa, Dec. 26.

To Frank Leyba, Jr. (9572), on the death of his mother in Santa Fe, Jan. 4.

To Stan Eastman (9562) on the death of his wife, Dec. 22.

To Reuben (9633) and Hazel Minter (1400), on the death of his mother in Eden, N.C., Jan. 10.

To Dorothy Noel (3152), on the death of her mother in Gadsden, Ala., Jan. 9.

Fun & Games

Racketball—The C-Club's Bob Giersberg has been busy trying to set up an arrangement whereby the Labs' many players could get court time. And he's had some success. He reports that the Base gym is willing to open up early—6 a.m.—and make the courts available exclusively to Sandians until 8 a.m., Monday through Friday, on a reservation basis. So you and your buddy can reserve one of the three courts from 6 to 7, or 7 to 8 and show up knowing that the court would actually be open. A nominal fee would be charged to cover overtime expenses—\$1.00 per hour per court (doubles play would thus come out to 25 cents per player). The arrangement is on a trial basis for two weeks starting Jan. 30 and will become a more-or-less permanent fixture if enough Sandians (and DOERs) participate regularly. Call Bob on 4-8468 to make a court reservation.

Bob has also worked out a deal with Tom Young's Spa & Racketball Club. Cost of membership is usually a \$300 initiation fee and \$25 per month, but if eight Sandians join the initiation fee is reduced to \$150; if it's 10, the fee goes down to \$100. Bob is again the contact on this deal.

Fitness for Women—This course has had a spectacular sign-up: 78. Classes began this week.

Equipment—Security's Les Baumann reports that his floating equipment supermarket now sports Brooks, Tiger and Riddell shoes, men's and women's versions, as well as warm-up suits and other athletic toggery. You can catch Les after hours in the Base gym's weight room—he's usually under a few hundred pounds of iron.

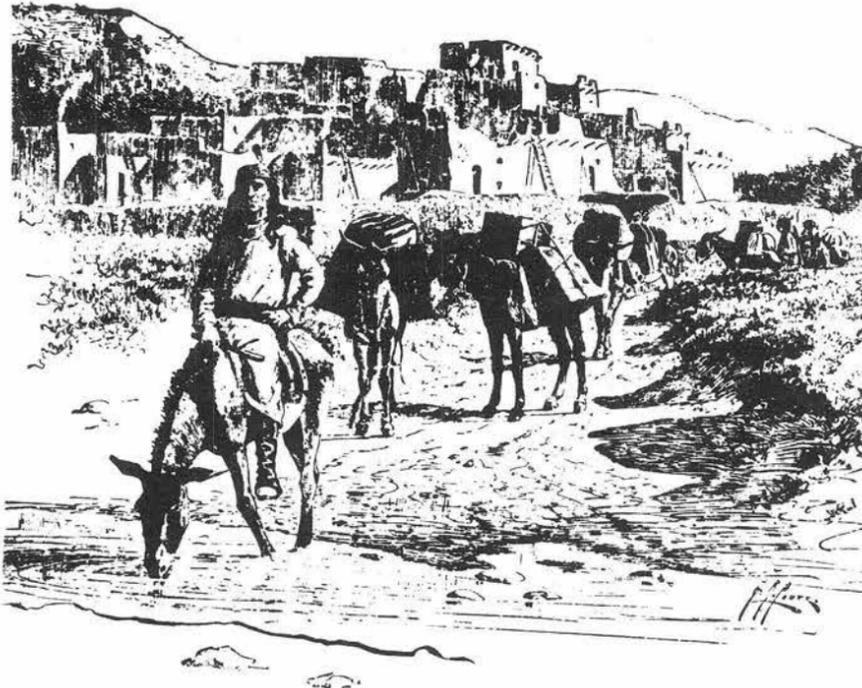
Skiing—If you haven't skied Utah, in particular if you haven't skied Alta, well then you may have only been sliding down snow-covered hills up to now. The Coronado Ski Club is offering a goodie, March 11 to 15, with transportation, lodging, dinners, breakfasts, lift tickets, booze et al, for \$160 per head, with skiing at Brighton, Park City, Snowbird and Alta. Bob Butler, 4-1632, reports that 14 spaces are still available on the bus.

Kart Racing—Mike Johnson (5216) suggests you come out this Sunday, the 22nd, around noon to the Triple-T Raceway on 11,000 Central NW to watch the action and, maybe, get a little involved yourself. "If you like to race but can't afford it," Mike says, "then check out go-karting. We hit speeds up to 100 mph." He says it's safe, too. Hmmm. Mike is on 4-6408 or 296-3431.



If your living room seems cold, redecorate. Researchers at Kansas State report that identically dressed subjects thought a well-furnished room decorated in warm colors was two-and-a-half degrees warmer than one with an identical temperature that was sparsely furnished and decorated in cool colors.

A PACK TRAIN leaves Taos. Annual trading fairs at the pueblo began in pre-historic times.



Vista New Mexico

Governor Bent Slain In Taos Revolt

TAOS, New Mexico Territory—Yesterday, Jan. 19, Governor Charles Bent was slain in his home by a mob of Spanish settlers and Taos Pueblo Indians.

* * *

These words describe an event which took place just one hundred thirty-one years ago—Jan. 19, 1847.

Charles Bent came to Santa Fe in 1826, just five years after Mexico severed its allegiance to Spain. Bent and another New Mexico pioneer, Ceran St. Vrain, went into business together, and their fur trading company became the largest in the southwest. Bent's Fort (located in southeastern Colorado) became a mecca for traders, trappers, and for trail-weary pioneers.

Bent married a native of Taos and built his home there. (He also acquired a famous brother-in-law when his wife's sister married Kit Carson.) With influential business and social connections, Bent soon became a well-known Anglo on the New Mexico scene. These were the days of mountain men, aristocratic *hacendados*, Indian, Mexican and Anglo traders, not to mention Taos Fairs and that well-known raw whiskey called Taos Lightning.

In August of 1846 another change came for New Mexico: General Kearney and the U.S. Army occupied Santa Fe. The Mexican government was out and the Americans ruled the Territory. On Sept. 22, Gen. Kearny appointed Charles Bent to be governor of New Mexico Territory.

It wasn't long before a movement developed to oust this new government before it could take root.

The national pride of many New Mexicans was affected when their country went to the Americans without resistance. Fearing they would be branded as traitors because of Governor Armijo's disgraceful flight, some citizens went along with the leaders of the plan. A revolt was set for late December, but the plot was discovered. Several leaders were imprisoned and others fled.

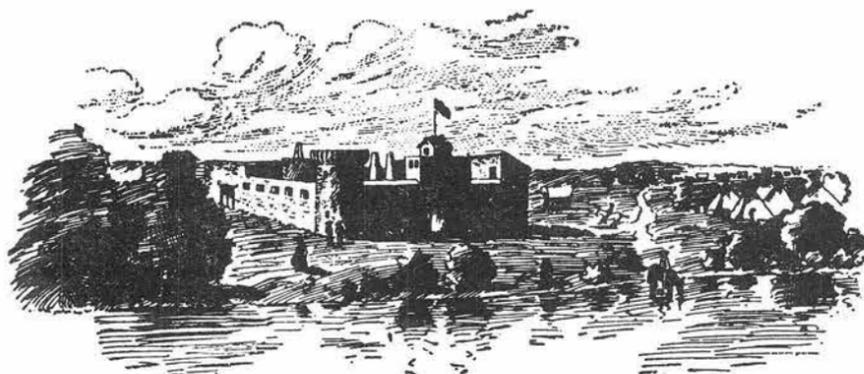
Believing the trouble was over, Governor Bent and some friends returned to his home in Taos on Jan. 14. He was unaware that Taos was, in fact, the seat of the revolt just as it had been in the Pueblo Revolt of 1680, when the Indians drove the Spaniards from the country.

On the morning of Jan. 19, a mixed crowd of Spanish settlers and Indians from the nearby Pueblo demanded that the sheriff release two prisoners. The Indians had no grievance against the U.S. but were aroused by plentiful amounts of Taos Lightning. When their request was refused they killed the sheriff and his prefect. The mob then attacked and broke into the governor's house, killing Bent and two others. The men were scalped alive. Bent's family escaped by digging a hole through the adobe wall of their home.

The revolt then spread to Arroyo Hondo, 12 miles away, where seven men were killed after a desperate two-day defense of Turley's mill and distillery. Two other men later died in a fight at Rio Colorado and, at Mora, eight traders were killed.

(next—Retribution!)

BENT'S FORT on the Arkansas River in southern Colorado was the principal stopping place on the Santa Fe Trail.



Sattler Returns From German Salt Mine

Being sent to the salt mines isn't always considered the world's most desirable assignment. But it proved to be for Allan Sattler (5311), who recently spent 10 months in a German salt mine and describes it as "a tremendous personal and professional growth experience."

Allan didn't spend all his time in the salt mine, of course, and the experience included achievement of linguistic proficiency, travel through several European countries, the birth of a daughter and the development of a host of new friendships and professional contacts.

Allan spent most of 1977 in the Federal Republic of Germany (FRG) working with the *Institut fuer Tieflagerung*, the organization which runs the Asse salt mine, the German waste repository in Lower Saxony. The Asse mine has been used as a radioactive waste repository for the past 11 years, and the Germans have also conducted experiments in the mine dealing with thermal fields, rock mechanics, permeability and room closure.

Since Allan has responsibility for the same type experiments in support of the DOE's Waste Isolation Pilot Plant program 25 miles east of Carlsbad, he spent about half his time in Germany in the Asse mine observing both the in situ experiments in progress and the day-to-day operations of the repository.

Chosen to represent the U.S. as part of an information exchange between the DOE's Division of Waste Management and the German Ministry for Research and Technology, Allan studied as many aspects of the German nuclear waste program as possible. He made several visits to two of Germany's major nuclear research centers (one in Karlsruhe and one in Juelich) to observe and discuss research related to the disposal of radioactive waste—and also to observe the actual conditioning, handling, packaging and shipping of nuclear waste. Karlsruhe and Juelich are the two largest sources of waste shipped to the Asse mine—which also stores low and intermediate level waste produced by FRG industry and medical labs. Allan also had frequent contact with the Geological Surveys of the FRG and Lower Saxony, two agencies greatly concerned with the disposal of radioactive waste.

As part of his study of Germany's future plans for a permanent waste repository, Allan visited concerned government agencies and private industry. And, since the Germans are investigating storage in the extremely dry Konrad iron mine in addition to geologic disposal in salt, Allan also visited the Konrad mine on numerous occasions. He also visited nuclear centers in Holland and France.

Much of any foreign tour deals with logistics—the everyday problems of housing, transportation, food, medical care. Relatively simple to cope with at home, these necessities can loom as large problems in a strange land, especially when the native language is not English.

Allan originally studied German in college years ago. When the German assignment seemed a possibility, Allan started to tutor with Jim Carroll, a UNM graduate student. Both Allan and his wife Gail signed up for German classes at UNM Community College in the Fall of 1976, and the last few weeks before leaving for Germany in Jan. 1977, they also tutored with Joan Winter (wife of Charlie Winter, 4010, and a Berliner by birth.)

"When we arrived, I had a limited conversational ability," Allan says, "but since almost no one at the Asse mine spoke English, I had to speak German from the start. Eventually I began to feel at ease in the language and I was able to conduct almost all my discussions in German, many of them very technical."

In terms of housing, Allan and Gail were exposed to both high and low German. They lived for a few months in an attic apartment in Clausthal-Zellerfeld, a University town, and the rest of their tour in a basement apartment in Lasfelde—a quiet rural village.

Because the various work locations were widely separated, and a long way from where they were living, Allan and Gail faced some unusual problems as Gail approached the end of her pregnancy.

"I didn't want to leave her alone," Allan said, "so I took her with me wherever I went. I rigged up a cot for her in my office at the Asse mine. Since clerical help was difficult to come by, Gail was a big help. She copied and assembled a number of letter reports for me while she waited." On Aug. 5, 1977, at 8:45 a.m., Wendy Anne Sattler was born in the Bad Harzburg Hospital.

"The medical care," Allan says, "was excellent." So, too, was their treatment throughout Germany by professionals and workers, by shopkeepers and neighbors.

"Germans like Americans," Allan says. "They're interested in us and they're friendly. We made lots of good friends and our treatment everywhere was superlative."

What is Germany like? Allan makes these observations:

• "There are 65 million people in the FRG living in an area roughly the size of Wyoming. Between Friday night and Sunday evening you can meet every one of them on the Autobahn."

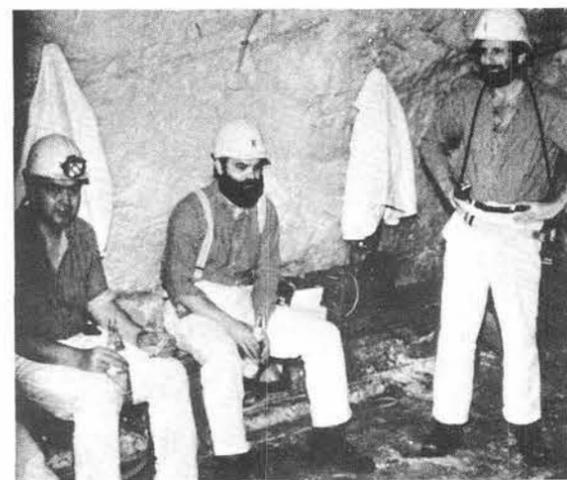
• "The work ethic is ingrained. From top to bottom, Germans are dedicated to work. And they take great pride in their accomplishments."

• "Vitamin D is one of the principal food additives for small children in Germany—an important one in a land of so little winter sun. I never saw so much rain. It will take five years for my bones to dry out."

• "Northern Germany is so far north you have 18 to 20 hours of light every day during the summer. Birds begin singing at 3 a.m.—and there's still twilight in the sky at 10 p.m. With so many daylight hours, crops grow fast. The land is barren in April, green by June."



HANDLING LOW LEVEL WASTE. A German worker moves drums of low-level nuclear waste in the FRG's nuclear waste repository in the Asse salt mine in Lower Saxony.



WITH RESEARCHERS AT ASSE. Allan Sattler (5311), right, takes a break in an experimental area of the Asse salt mine.



HIGH GERMAN. Allan and his wife Gail learned the meaning of the term "high German" as they climbed 56 stairs to an attic apartment in this building. Meaning of "low German" came clear during the six months they lived in a basement apartment.

Allan's favorite trip was a drive from Munich to Ispra, Italy—a diagonal route through the Alps that parallels the long mountain valleys.

"It took us two and a half days," Allan says. "We stopped at wonderful inns where the food was good. We went through Bavaria, the Tyrolean province of Austria, southern Switzerland and part of Italy. It was difficult to tell when we went from one to the other. The similarities transcended national boundaries."

Glad to be back at Sandia, Allan says he most misses German bread and beer. "Compared to German beer," Allan sums up wistfully, "American beer is nothing but memory water." • cec

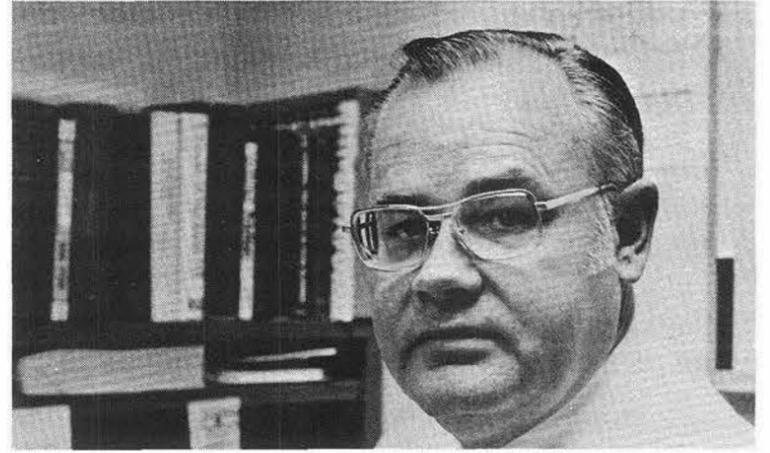
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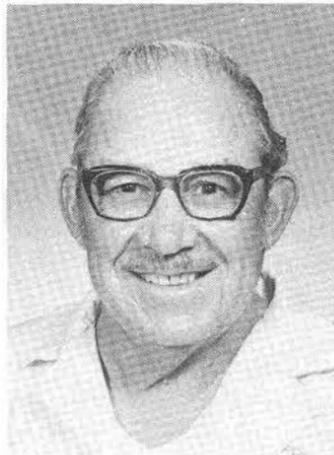
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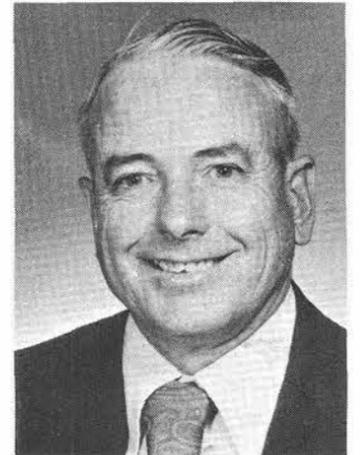
Bob Cranfill - 1713 20



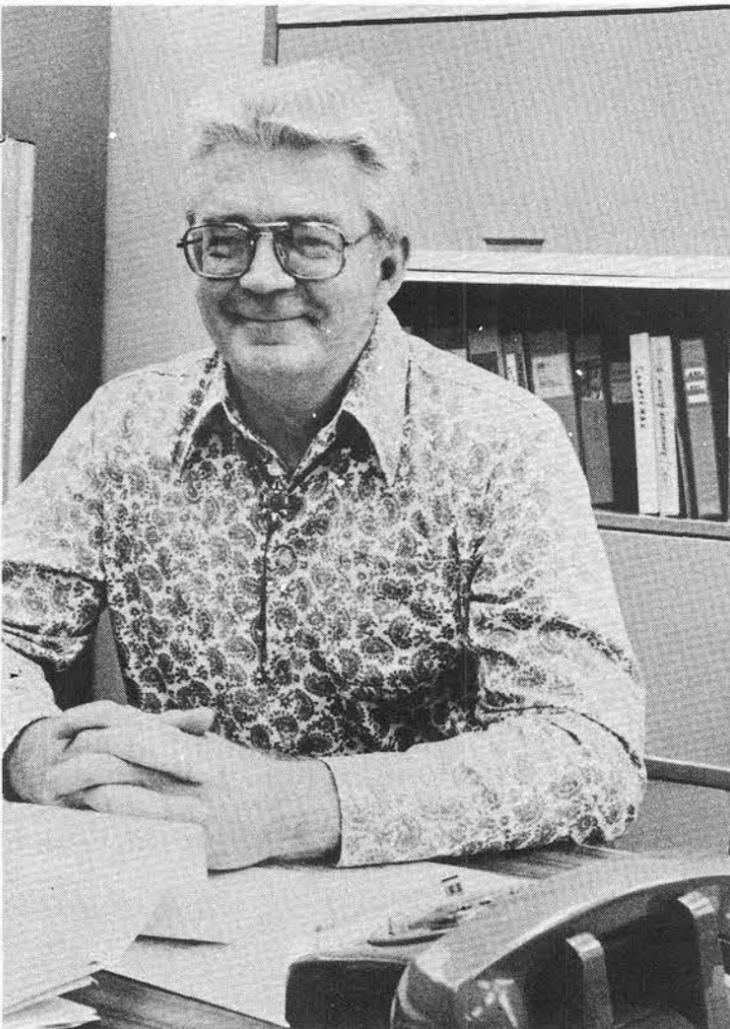
C. B. Torres - 9582 25



Don Knapp - 1211 25



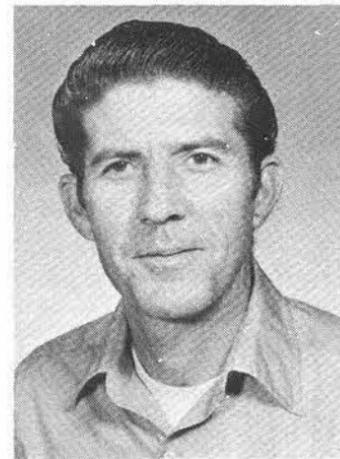
Charles Lowe - 9632 20



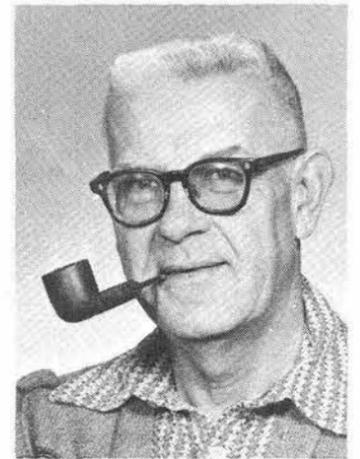
John Christopher - 3512 30



Gerald McCoach - 5712 15



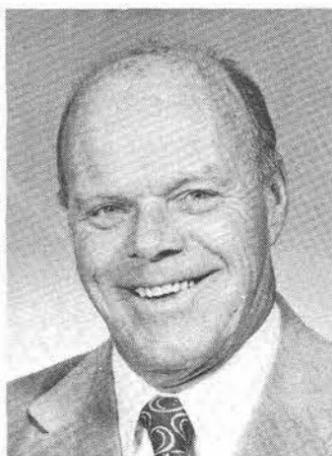
Adron Pritchard - 2631 15



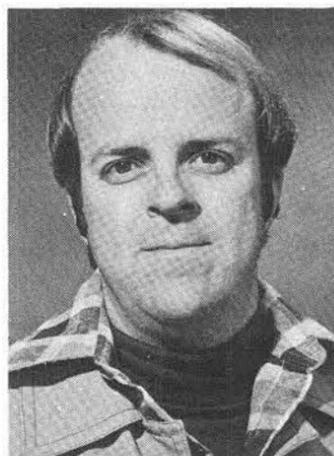
John Colp - 5731 20



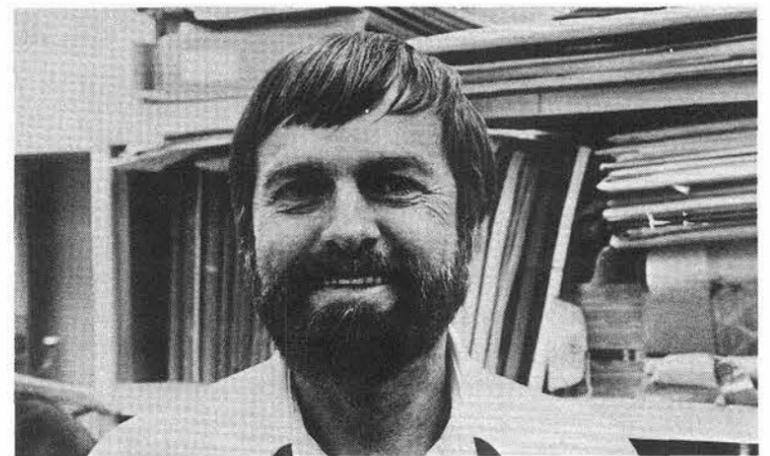
Roy Hollenbach - 8353 25



Allen Thornton - 2524 25



Bob Easterling - 1223 10



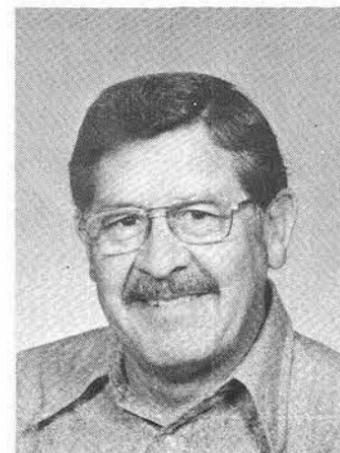
Bill Pepper - 1332 25



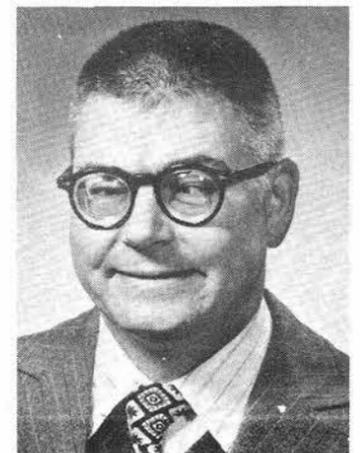
Elizabeth Cook - 3172 15



Lewis Larsen - 5711 25



Gilbert Ramirez - 3411 25



Gary Montague - 3522 15

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Bonds are for cashing in on an education.



"If the disease known as alcoholism had another name," says Tom Riley, a counselor at Deere & Co. in Moline, Illinois, "It would create a national panic. And if you add the number of heart attacks in which alcohol is a secondary cause, plus the number of car accidents—68 percent are alcohol related—then alcohol becomes this country's number one killer . . ."

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MISCELLANEOUS

- TRASH BAGS, city-approved, \$4, South Hwy. 14 Project. LAB NEWS office, Bldg. 814.
- WHEELS, 15", w/studded snow tires (2) from '67 Ford, \$15 ea.; 2 end tables, walnut veneer, \$7.50. Auerbach, 296-1489.
- 32x38 BRASS fireplace screen w/ andirons, \$15; Sears dry bar w/ glasses, \$45. Harstad, 298-6551.
- QUARTERHORSE, gelding, 2 yrs. old, broke & gentle, no papers, AAA ancestry, \$400. Morrison, 877-7425.
- FIREPLACE SCREEN, free standing, \$20; fireplace heating tubes, fits 27H x 36W x 22D, no blower, \$25. Ayotte, 268-1864.
- SKI BOOTS, Lange, men's size 9 1/2, \$20. Durant, 298-4952.
- '77 19' TRAVEL TRAILER, Layton, self-contained, AC, 4 radials & spare, battery, sleeps 6, \$4800 or best offer. Anderson, 296-3558.
- O'KEEFE & MERRITT dishwasher, 3 yrs. old, avocado, \$50, built-in. Paul, 299-6387.
- DOUBLE OVEN w/rotisserie, GE. Hanson, 298-0637.
- BEDROOM SET in maple finish, reg. size bed w/bookcase headboard, complete, \$140. Carter, 296-4127.
- WHEELS, Ford, 15x6, for drum brakes only, \$5 ea., 2 available. Booker, 299-3554.
- DRUMS, bass, snare, tom-tom, cymbals, beginners, \$150; Gibson guitar w/case, \$150. Barnaby, 265-4353.
- 4-SPEED transmission w/Hurst shifter, for early model 289 Ford, \$75; grill guard for '73-'78 Ford pickup, \$50. Weatherbee, 869-2849.
- BABY BED, Storkline, w/mattress & bumper pads, \$30. Russell, 883-1246.
- TWIN sofas, Ralph Morse Grand Rapids certified furniture, inner-spring cushions, tan frieze, \$225; need wingback chair; German rifle scope, \$35. Smitha, 881-1001.
- WATERBED, dbl. bed size, including frame, liner, heater, thermostat, \$80. Sears weights, barbells, bench, \$30. Mattil, 294-0331.
- COLOR TV, 25" Magnavox console, \$115. McIntire, 294-5884.
- CERAMIC TILES, grey, enough for tub/shower enclosure, \$10. Weston, 265-1196.
- TRIPLE DRESSER w/2 mirrors, high-boy, dressing table, 2 nightstands, solid natural cherry, French provincial. Lund, 268-4847.

- MARK TWAIN novels, nine novels in seven hardback volumes, new edition, \$15. Cockelreas, 256-7570.
- MORSE ZIGZAG sewing machine & cabinet, \$175. Eads, 293-2617.
- REVOX A77, \$600; TEAC AN 180, \$200, TEAC 360S, \$175; ADC 500 12 band equalizer, new, \$175; all for \$1050. Garrison, 881-1851.
- GE elec. dryer, \$20 or best offer. Simons, 821-9343.
- CORNER BED UNIT, \$100; manual typewriter; contemporary sofa; vinyl sofa, love seat & end table; various lawn tools. Dyer, 299-3231.
- HAND TOOLED leather matching holster & belt; WW-2 aircraft flight manuals; Rolleiflex twin lens camera, for collector. Laskar, 299-1024.
- WARDS power grip snowtires, G78-14 tubeless, load range B, 2 plies polyester, 2 plies fiberglass. Morton, 296-6108.
- CONSOLE B&W TV, \$50; twin mattress & box springs, \$30; manual typewriter, \$20. Bishop, 299-5749.
- INFANT BACK PACK, Gerry Carrier, \$8; hibachi, \$2; youth chair, \$5; high chair, \$5. O'Connell, 255-6575.
- PORTABLE dishwasher; elec. range w/dbl. oven, \$95 ea. Marder, 268-9643 after 5.
- SIMMONS dbl. mattress & box springs, extra firm (built-in board), \$75; 2 blond bookcase headboards for dbl. bed, \$15 ea. Palmer, 294-7434.
- CAMPER clamps for GMC or Chevy pickup, \$12.50; porcelain lavatory sink, \$5; 16-light steel casement window w/screens, \$25. Freyermuth, 299-2053.
- UTILITY trailer w/metal top, \$100; 3-burner stove & oven for van or camper, w/horizontal mount LP gas tank for mounting under vehicle, \$150; camp toilet, \$3. Worrell, 299-0381.
- DOG SHIPPING CRATE, fiberglass, 13x18x17", used once, \$10. Hendrick, 296-2163.
- TYPEWRITER, portable, manual, \$25; formica bench, \$5; red, green bean bag chairs, \$5 ea.; rocker, \$15; other chairs. Kepler, 298-5652.
- HYDRAULIC front end lift for cars or motorcycles; 12" Craftsman lathe & clausing mill, both with attachments. Brock, 865-4055.
- AKK Miniature Dachshund, 5-yr-old male, needs good home w/lots of affection, \$50. Tyner, 294-5289.
- TWO HAMSTERS, 1-wk-old deluxe habitat set, misc. supplies, \$20. Gillman, 881-0514.
- FREE STANDING fireplace screen, andirons; chrome front bumper for Scout II; 2 pr. ladies ski boots, size 7 1/2. Brooks, 299-1884.
- ENGLISH Pointer hunting dog, 2 yrs. old; lg. trunk; maple wet bar; aerator, steel. Long, 294-5153.
- SEWING MACHINE, Sears w/cabinet, removable cams for decorative stitching, recently adjusted by Sears shop, \$75. Bartlett, 299-4861.
- ACCORDION, Hohner Corona II; tire changer, manual & equipped for air; Necchi sewing machine. Herrera, 836-1768 after 5:30.
- STEREO speaker cabinets, \$50/pr.; Roper built-in dishwasher, \$25; boy's 20" bicycle, \$25. Kobs, 298-9133.

TRANSPORTATION

- '68 FORD 1/2-ton, V8, 390, AT, AC, 66,000 miles, new tires & brakes; w/8' cabover camper, stove, ice box, heater, jacks, \$2100. Davis, 268-6944.
- '68 PONTIAC, AT, PB, PS, \$350, or motor alone \$300. Chaves, 242-2126.
- '76 FORD Pinto hatchback, low mileage, std. trans., radio. Williams, 266-8472.
- '76 KAWASAKI K2900 4-1 headers, K-N air cleaners, less than 7000 miles, \$1800 firm. Armijo, 268-7645.
- '64 FORD Falcon, 4-dr., manual trans., recent engine & trans. overhaul, new seat covers, '78 tags, \$350. Ford, 255-1383.
- '77 DATSUN B210, R&H, 4-spd., 2-dr. white exterior, lt. interior, 3500 miles, \$3650 or best offer. Anderson, 296-3558.
- '76 CHEVROLET Malibu Classic, 4-dr., brown, new steel belted radial tires, new Die Hard battery, \$3400. Ford, 255-1383.
- '71 LA SABRE 350, 4-dr., PS, PB, AC, AM/FM, \$950. Deveney, 883-1266.
- '77 CHEV. 4x4 pickup, 4-spd., 350V8, locking hubs, \$5525 or best offer. Johnston, 869-3196.
- '77 Montesa Cota 348 trails bike w/3 bike trailer, one or both. Williams, 293-3630.
- '70 DODGE Monaco wagon, loaded, AT, AC, PS, PB, cruise control w/new LR78-15 tires, \$795. Barber, 299-1752.
- '64 CORVAIR Monza, \$450. Bennick, 299-9687 after 5.
- '76 MG midget, 20,000 miles, radials, AM/FM, tonneau cover, \$3600 or best offer. Barnard, 831-4114 evenings only.
- '73 TOYOTA stn. wgn., AC, 4-spd., radial tires, 44,000 miles, \$2095. Roth, 877-4997.
- '64 FORD stn. wgn., 289V8, heater, AT, \$375 or best offer. Ricker, 296-2191.
- '63 CUTLASS F85, sporty, 4 on the floor, built in tach console, factory air, \$375. Montoya, 883-9115.
- WINNEBAGO Brave, 8800 miles, Dodge 440 engine, extras, \$9000. McKenzie, 299-2359.
- '71 CORVETTE, T-top, 4-spd., PS, PB, stock condition. Cleveland, 299-7420.
- '75 OLDS Starfire, V-6, 4-spd., PS, PB, AC, AM/FM cassette, gages, new radial tires, low mileage. Dakton, 299-3024.
- '76 CHEV., 1/2-ton pickup, SWB, 6-cyl., 3-spd., 13,200 miles, below list, \$3100. Iman, 299-6500.
- MOTORCYCLE, \$125. Dyer, 299-3231 after 5.
- '74 SUZUKI TM125 Motocross bike, needs work, engine disassembled, \$100. Bedeaux, 345-1456.
- '72 FORD Galaxie 500 wagon, AT, PS, PB, R&H, 67,000 miles, 2 new tires, new brakes, \$1475. Radigan, 299-8345.
- '68 VOLKSWAGEN BUG, auto. stick shift, 52,000 miles, \$1000. Wilkinson, 299-8327.
- 1937 FORD pickup w/5000 miles on new engine; also Columbia rearend

and parts to be sold separately. Rebarchik, 299-1385.

- '72 FORD VAN Econoline 200, V8, AT, one owner, 44,000 miles. Higgins, 299-4302.
- '54 FORD step van w/camper conversion, insulated, paneled, carpeted, built-ins, sink, stove, ice box, hitch, w/'64 Ford 6-cyl. engine, 3-spd w/2-spd. rear axle, \$900. Stack, 292-1309.
- '74 NOVA, one owner, 2-dr. auto., 350-V8, 31,000 miles, \$2000 or best offer. Jinzo, 345-5383 or 345-4615.
- '71 PLYMOUTH Fury, AC, PS, AT, new radials, battery, brakes & shocks; 68,000 miles, \$875. Hitchcock, 821-8149.
- '69 CHEV. Impala, AT, AC, PS, PB. Hart, 881-1733.
- '78 CAMERO Rally Sport, Type LT, 4-spd., air, elec. windows, all options, \$7300 new, sell for \$6700. Gray, 298-5771.
- '73 MERCURY Cougar XR-7, 351C, AT, AC, PB, PS, AM-FM stereo, 2-dr., bucket seats, below book. Bagg, 298-4035.
- '62 CADILLAC sedan Deville, all power & air, six wheels. Brooks, 299-1884.
- '70 FORD Country Squire wagon, air, power, 390 V8, reg. gas, steel belted radials, Die Hard battery, \$895. Allen, 869-6680.
- MERLYN MK 11A Formula Ford race car, 1969 model, ready to race, complete with I.R.D. factory trailer, \$3250 or trade for older XKE Jaguar & cash. Lucero, 836-5375.
- '66 CHEVY Chevelle, 6-cyl., 2-dr. sedan, AT, R&H, \$350. Padilla, 877-2116.
- SELL OR TAKE OVER PAYMENTS: '65 Datsun pickup; '65 Ford Galaxie 500, smashed rear left fender. Herrera, 831-1768 after 5:30.
- '76 CHEV. panel van, 1/2-ton, LWB, towing package, radio, 350-V8, 3-spd., \$4000. Butler, 293-7699.
- '72 INTERNATIONAL SCOUT II, AT, AC, PS, 4-wd, convertible. Cover, 881-3860.
- '76 FORD CARGO VAN, Econoline 250, 1/2 ton, dual gas tanks, PS, PB, 3 speed, \$3900. Dan, 344-4049, days; 344-5126, evenings.

Aragon, 242-1651.
HOUSE, 3 bdr., den, 2-car garage, 1700 sq. ft., NE Heights, near bus, \$400/mo. Moss, 298-2643.

WANTED

- FOUR-DRAWER or two-dwr. filing cabinet. Peterson, 256-7514.
- SHOPSMITH. Harstad, 298-6551.
- EXERCYCLE, speedometer, odometer, timer. Gallegos, 255-5264.
- EXERCYCLE, good condition, reasonable price. Martin, 296-0941.
- LONELY male parakeet desires compatible female parakeet to share 2-perch cage, references available. Ponce, 898-0407; Padilla, 296-8772.
- USED DRUM SET for beginning student. Hymer, 298-2232.
- MECABLITZ 196 L25C flash unit, working or not, for spare parts. Hughes, 299-6674.
- RUSSELL WRIGHT pottery dinnerware, any piece, any color. Dillon, 881-3843 after 5:30.
- BOAT TRAILER for 13' lightweight sailboat. Woods, 296-4741.
- HARD TOP for '66 Bronco. Arnold, 293-7824.
- BABYSITTING—Baker Hoover area only, before and after school, some kindergarteners, have openings for part time workers. Gottlieb, 298-9859.
- RENAULT R-10 motor, does not have to be good. Bassett, 898-1840.
- CAR POOL from Glenwood Hills area to Area I. Butler, 293-7699.
- VILLA SANTA MARIA Boy's Home needs household items, etc., for benefit flea market, Jan. 29. For pickup or delivery call Kim, 821-7297.

REAL ESTATE

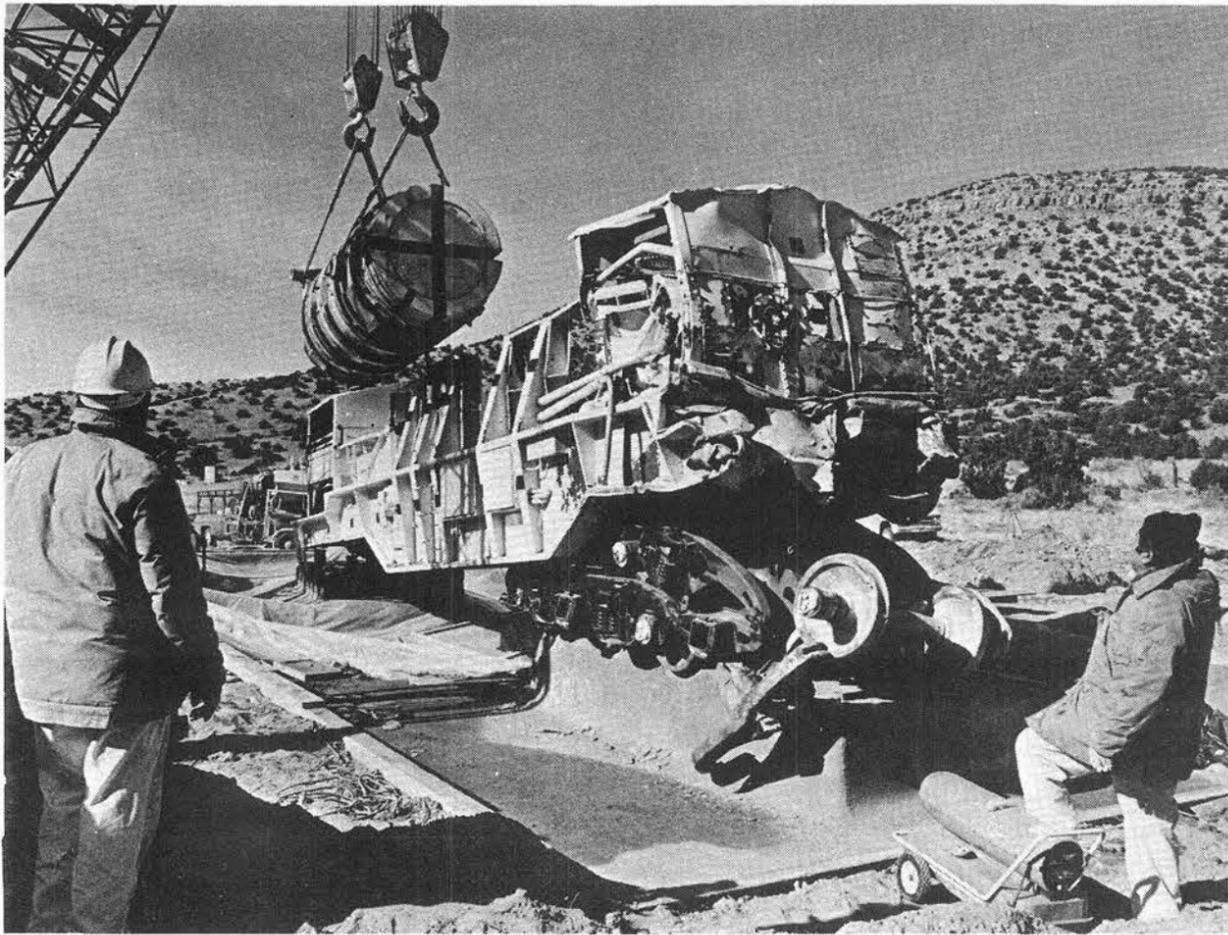
- THREE 1-acre lots at Bosque Park, ditch water rights, North Loop. Baca, 869-6637.
- TWO acres, So. 14, quality development, pinon-cedar-juniper & ponderosa pine, at end of road, bordered by farms on 2 sides; offer. Patrick, 255-5944.
- 3-BDR., 1 1/2 baths, LR, formal DR, breakfast area, FM, fp, covered patio, low 50's. DeWitte, 821-4548.

LOST AND FOUND

- LOST—Woman's black leather glove for left hand, tan leather-like case for glasses, tan plastic case for glasses, man's brown winter jacket.
- FOUND—Indianhead nickel w/turquoise chip background (pendant), man's brown leather glove, tan plastic-rimmed trifocals, blue/white head scarf, men's black vinyl gloves, metal rim bifocal glasses in case ("Dr. John Gavey, Optometrist"), Schlage key attached to paper clip/fastener. LOST AND FOUND, Bldg. 832, 264-6245.

FOR RENT

- NEW 2-bdr. apt., walkin closets, fully carpeted, stove & refrig., washer-dryer available. 204 Gen. Stillwell NE. Gonzales, 298-2164.
- 2-BDR. apt., clean, unfurnished, dishwasher, drapes, storage, laundry facilities, no pets, near Lomas & Chelwood, \$210. Wiczer, 296-4496.
- 3-BDR. home, unfurnished, appliances, carpet, drapes, 1 1/2 baths, yard, garage, NE, \$275, water paid. Duvall, 881-4406.
- UNFURNISHED 1-bdr. apts., new, stove, refrig., disposal, carpeted, laundry, parking, children O.K., no pets, \$140. Montoya, 544 Charleston SE, 255-8437.
- 1-BDR. furnished, utilities paid, patio, bar, laundry, frost-free refrig., adults, no pets, 541 Espanola SE.



NEXT, THE FIRE—When last seen, this battered railcar had just been rocket-propelled at 81 mph into a concrete wall. After the test, in which the 74-ton shipping cask for spent nuclear fuel was essentially undamaged, both cask and railcar were moved into this concrete pool for a 30-minute bath in burning jet fuel. The fire test, set for next week, is finale of DOE program being conducted by Sandia to determine survivability of shipping casks in severe transportation accidents.

feed n'iback

Q. Why not post the names of CPR-trained people in areas where they are located? They could then be called upon in emergency situations.

A. We are providing the names and organizations of personnel who are trained in CPR to their respective directors, with the request that the names be posted in the appropriate buildings.

We are also now furnishing our CPR graduates with magnetic "CPR" stickers which, placed in visible locations, will help to identify and locate a qualified person.

Sheldon P. Bliss, M.D.
Medical Director—3300

* * *

Q. I recently got an urgent message from home that I should call an out-of-state relative, who had a problem. To my surprise, I found the pay phone in building 880 had been removed.

I solved the problem by using a pay phone in Bldg. 800. However, I suggest that we are all subject to personal contingencies from time to time, and a pay phone or two would seem a moderate investment in employee amenities, regardless of whether they are moneymakers:

A. Three years ago, pay telephones were installed in Buildings 840, 880, and 892 on a trial basis. These telephones received little usage and the revenue did not cover the monthly charge for the service. As a result, they were removed in September of this year.

In emergency situations, such as you describe, non-official long distance calls may be placed from your office phone provided that the call is charged to your home phone or is placed collect. Inform the long distance operator that your call is a third party billed call and give the operator your home telephone number.

L. E. Hollingsworth—2600



Coronado Club Activities

You Can Get A Free Kazoo

TONIGHT, HAPPY HOUR features La Ultima on the bandstand, pot roast and lasagna on the buffet.

ALSO TONIGHT, retiree Club members will party starting at 4:30 in the El Dorado room. Mike Michnovicz with accordion entertains.

TOMORROW from 9 to 1 Elton Travis and his country western group plays for dancing. Admission is free to members, \$1 to guests.

NEXT FRIDAY, Jan. 27, something called "Smoothie" is wired into the bandstand, shrimp creole and ham is spread for the buffet.

KAZOO HOEDOWN is what they're calling the big one this month. Scheduled Saturday, Jan. 28, the event will work this way—you put on your fancy western shirt, jeans, boots and stetson and mosey on over to the Club about 6. You give the girl your ticket and she gives you a free kazoo. You enjoy a barbequed spare rib, beef, chicken, corn-on-the-cob, etc., dinner and dance a few with the Watermelon Mountain Jug Band. Then the band members will instruct you and organize the group into the world's largest kazoo band playing things like "You Are My Sunshine" and "Red River Valley" or something. To be part of all this, pick up your tickets (members \$6, guests \$7) at the Club office *today or tomorrow*.

CORONADO SKI CLUB is sponsoring what they call a "hands-on" ski maintenance clinic Jan. 24 from 6:30 to 9:30 in the El Dorado room. Bring your skis and use the club's equipment for making repairs or checking bindings. Help will be on hand if you need it.

SANADO CLUB plans an excursion to San Ildefonso Pueblo Jan. 23 to attend the fiesta and watch the dancing in the plaza. Lunch will be at El Paragua in Espanola. Call Judy Love (299-0956) or Roberta Landrith (255-6968) *today* for reservations.

CORONADO WOLFPACK meets Jan. 31 at 7 in the ballroom to watch a demonstration by Lobo gymnasts.

TRAVEL—Jan. 25 is the close-out date for the 8-day Jamaica trip scheduled for departure April 30. The \$419 package includes all transportation and 7 nights at the Jack Tar Jamaica (formerly a Playboy resort) plus a lot of free activities and entertainment. For another \$75 an optional meal plan is available which includes beach parties with limbo dancers and calypso entertainment.

See Travel Director Ed Neidel (2166) in the Club lobby tonight between 6 and 7 for the full scoop on this trip or several others—Israel during Holy Week, Disneyland during Easter school vacation, Hawaii in April or an Eastern Mediterranean air/sea cruise in June.