

MILE-LONG VACUUM PIPE encloses laser beam, heart of the largest and most sensitive strain seismometer ever designed, operating in Coyote Canyon. From left are Ben Benjamin (1123), Wendell Weart (1140) and Doug Gabin (1111).

## Mile-Long Seismometer In Coyote Canyon

The largest known instrument ever built to measure earth movement has gone into operation in Coyote Canyon. Its extremely wide range of frequency and amplitude give it unique advantages when compared to conventional seismometers. Called a laser strain seismometer, the instrument uses a frequency stabilized laser to create a beam of light through a mile-long (1600 metres) six-inch diameter pipe; the beam is reflected by a mirror back down the pipe to an interferometer and read-out device. The seismometer is capable of measuring earth strains that produce a shift of a fraction of wave length in the beam.

Unlike conventional seismometers, the laser strain seismometer will record the entire spectrum of earth movement, with no practical limit to its "flat" frequency response.

Based on a design developed by Professor Jon Berger at the University of California, the seismometer is a joint project of Underground Physics Division 1111 formerly headed by Wendell Weart, and Instrumentation Fielding Division I 1123 under Ben Benjamin.

The primary purpose of the instrument is to measure earth movements created by underground testing at the Nevada Test Site, local testing in area III, earthquakes, and other natural phenomena such as earth tides. The instrument is aimed directly at the Nevada Test Site to optimize monitoring of seismic waves from the site.

Sam Stearns and Doug Garbin (both 1111), project scientists, will use the wide dynamic range of the laser seismometer not only for work relating to underground testing, but also for research in geophysics and seismic instrumentation. For the first six months of operation, the instrument is being calibrated by direct comparisons with other seismic instrumentation, including a smaller laser seismometer installed parallel to the main instrument.

The helium-neon laser, a key element of the system, is accurate in frequency output to approximately one part in  $10^{11}$ . Data from the seismometer is recorded and analyzed on a PDP-11 data logging system engineered by Ken Kimball (1123) and programmed by Harvey Ogden (1111).

On May 26, 1975, an earthquake of magnitude of 8.0 on the Richter scale occurred off the shores of Portugal. Peak strain readings at Albuquerque were about 2100 counts, corresponding to a strain of about 21 parts in  $10^{10}$ , or about one ten thousandth of an inch over the one-mile instrument length. The record exhibits extremely wide bandwidth and low distortion, qualities unique to the laser seismometer. Several nuclear tests at the Nevada Test Site have also been recorded by the seismometer and even the seismic signal due to the subsequent collapse of the cavity caused by one of the nuclear events was recorded.

The laser and interferometer rest on a granite pier at one end, while the reflective mirror is on a similar pier at the other end of the mile-long pipe. Three pumping stations along the pipe assure the vacuum inside the

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

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# Afterthoughts

The Buy-centennial--"The list of commercial efforts to tie in with the Bicentennial is endless. A Bicentennial-planning group in Florida complains of being besieged with literature on such products as a 100-foot high durable rubber statue of Uncle Sam selling for \$25,000; and a \$495 reproduction of the Liberty Bell from a Belgian firm. There are also Spirit of '76 neckties ('a visible sign of your enduring patriotism'); red, white and blue halters; desk-top Statues of Liberty; and so on...No wonder they call it the Buy-centennial." S. Compton in Media and Consumer

\* \* \*

Inspired typo--The sentence in the ERDA release read: "More than 75% of our energy comes from oil and gas--a dwindling resource." We retyped that for a LAB NEWS article, and some how here is how it came out: "More than 75% of our energy comes from oil and gas--a swindling resource."

\* \* \*

Amen--"The aim of education should be to teach the child to think, not what to think." John Dewey \*js

## Letter to the Editor

Dear Editor,

Recently several of us bicyclists were riding north along the east side of the Parade Ground. As we approached the stop sign at the corner we slowed down and, seeing no cross traffic, proceeded across the street without stopping. As we did so a feminine voice called out to us politely and reminded us of the stop sign. Her comment deserves a polite reply. Unfortunately, the middle of the street was no place to stop to discuss Air Force regulations. Hopefully she is a reader of the *Lab News*.

According to the KAFB traffic code, bicycle riders may treat a stop sign as if it were a yield sign. AFR 125-4/KAFB Sup 1 of 10 January 1975, Subsection 9b says "Any

person operating a bicycle shall obey the instructions of official traffic control signs, and other control devices applicable to vehicles, unless otherwise directed by a security policeman, provided however, that *any person operating a bicycle approaching a stop sign may operate his bicycle as if the stop sign were a "YIELD RIGHT-OF-WAY" sign.*" (Italics mine.)

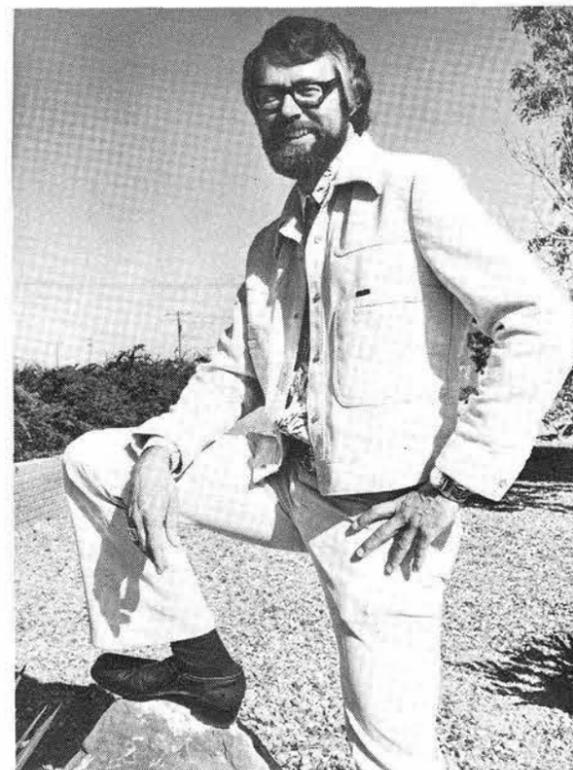
This exemption for bicyclists applies only to stop signs and only on KAFB. A stop is required off base by both Albuquerque and New Mexico traffic laws.

Yours truly,  
Irwin Janney — 9412



## Be A Quitter

You can. Cold turkey, by yourself. Or join the Sandia-sponsored "Five Day Plan to Stop Smoking" being offered without charge to employees. It starts Monday, Aug. 4, at 4:30 p.m. in Bldg. 815. The approach is sound, it's worked with many smokers, it just might work with you. You can get a registration form for the Five Day Plan by calling 4-1047.



ON AUG. 1, DICK MEYER (5824) begins a two-year leave-of-absence to work in the Western Governors' Regional Energy Policy Office in Denver. The appointment, Dick says, is an outgrowth of his recent work in energy related fields while serving as president of the New Mexico Academy of Science and with the Governor's Energy Task Force. As science advisor on the professional staff of WGREPO, one of Dick's functions will be to promote and coordinate state-supported energy research and development programs among the 10 western states.

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## Seismometer

pipe. Installation of the pipe, which is standard six-inch irrigation pipe, was something of a surveying problem — it is not level, it is straight. If it were level, it would bend with the curvature of the earth. Instead, it provides a direct line-of-sight. The vacuum removes density variations along the beam path which would affect beam velocity. Contractions and expansions from temperature changes are handled with a number of sleeve-type expansion joints. Laser and reflector housings are heated and kept at a constant temperature.

Contributing to the project were John Banister (1150) and Tony Zuppero (8342), consultants; Jerry Brannon (1116), Gerry Laursen (1123) and Dan Parsons (1123), optical systems; Harry Holmes (1123), vacuum and mechanical systems; and John Loukota (1123), electronic systems. Cecil Morrisett, Hyder Burress and Alan Spencer of Plant Engineering Design Department 9740 performed the detail design of the facility construction.

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&

lorena schneider reports on livermore

## Women's Association Honors Nancy Hunt



Nancy Hunt (8161) was recently named "Woman of the Year" by the Livermore Valley Charter Chapter of the American Business Women's Association. Selection for the annual award is based on the member's contribution to the organization, achievement in the business field, and participation in community activities.

In addition to holding various offices in the chapter, Nancy has been active in the local historical society, and is a member of the Livermore "Sweet Adelines" singing group which has won State and West Coast recognition. A former Grand Ole Opry cast member, she sang with the Checkerettes and later the Beasley Sisters, both groups made up of her mother, sister and herself. Each time she goes back to Nashville on vacation, they reunite and appear on television together at the Opry.

Later this year Nancy will represent the local chapter in competition for the "American Business Woman of the Year" award at the ABSA's 1975 national convention in Cincinnati, Ohio.

## Take Note

Livermore Sandians can join the Coronado Club in Albuquerque for \$3 a year. It's a long trip for Happy Hour, but membership qualifies you for the deals the Club makes on travel packages. Contact Dick Baughman (at 4-6337) for more info.

### 1st Class Swine

## Sandian Is 4H Mentor

"Fair Week is the climax to the many hours of work — and tender, loving care — each boy or girl has put into raising a premium quality animal," says Dick Cook (8433), swine project leader for Livermore's Crane Ridge 4H Club.

In the last two years, the 10-member Crane Ridge Club has taken top four honors in competition with some 120 youthful swine exhibitors at the Alameda County Fair. This year, Dick's 11-year-old son Brian won overall grand champion and first place in showmanship in the novice (under 13) category.

Dick, along with his wife Nan, has been active in various phases of 4H work over the past eight years. Actually their 4H involvement developed along the way into a family affair. Older son Kent won the master showmanship award two years ago, and younger daughter Sheryl, entering this year for the first time, placed fourth in novice showmanship.

Many of the club's winning swine are farrowed (born) on the Cook's six acre ranch south of Livermore, including Brian's 1975 grand champion, a seven-month-old gilt (an unbred female pig) weighing 234 pounds. Named "Petunia," she was one from a litter of eight registered Hampshire piglets entered at the fair by other club members.

To place in the top 10, Dick cites the ways of winning swine. The animal must be at

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SQUIRMING PIGLETS with Dick Cook (8433) and son Brian are still bottle fed at age one month. Dick is swine project leader for Livermore's Crane Ridge 4H Club.



THIS IS "Petunia", at six months and 234 pounds the grand champion at the Alameda County Fair.

the correct age to fall within weight limitations at the time of competition. Proper housing must be available, as well as equipment for watering, feeding and exercising. And the young owner must be able to detect and treat animal illness and learn a few techniques for training and showing. With a little luck and if both the 4H'er and the animal are in a cooperative mood on competition day, there's a good chance of placing near the top.

On the last day of the fair, the livestock is brought before the buying public and auctioned. As each youth leads his or her animal into the ring, the auctioneer asks for bids and, after the highest bid, arrangements are made on the spot for consignment to a meat packing or frozen food plant. "It's a terrific way for 4H'ers to develop insight into livestock marketing," remarks Dick.

As a 4H project leader, Dick meets with parents to explain at the outset what is involved and expected in carrying out a 4H project. Field trips are a part of the project, perhaps to a meat packing company or to a ranch that raises competitive market animals. The young people hear presentations on animal raising and care, talk with experienced project members and meet farm animal professionals.

Considering the price of pork, raising swine looks like a good way to go.

### Sympathy

To Joey Davis (8433) on the death of her father in San Antonio, Texas, July 2.

To Clarence Karfs (8312) on the death of his mother in Illinois, June 13.

### Congratulations

Marlyn Fortes (8212) and James Diaz married in Livermore June 7.

Art Hull (8158) and Nancy Klein married in South Lake Tahoe, Nev., June 15.

John Wheeler (8432) and Schareen Schurr married in Daly City, Calif., June 28.



*DISTINGUISHED SERVICE AWARD is presented to Herman Roser, Manager of ERDA's Albuquerque Operations Office by his now retired predecessor, Sam Donnelly. Morgan Sparks looks on. The award was presented "... in recognition of his outstanding service in managing and directing a variety of programs vital to the national security of the United States."*

## FY '75 Payroll Figures Released

The Sandia Laboratories payroll for fiscal year 1975 (July 1, 1974, through June 30, 1975) amounted to \$95.3 million at Albuquerque, and \$15.2 million at Livermore. For FY '74, these figures were \$88.8 million for Albuquerque and \$14.2 million for Livermore. Salaries of some 40 employees at Tonopah Test Range in Nevada are included in the Albuquerque figures.

At the end of FY '75, about 6,410 were on roll, including some 870 at Livermore. The total is about 65 fewer than at the end of FY '74.

Assets of the Energy Research and Development Administration's installations operated by Sandia totaled \$323 million at the end of FY '75, compared to \$319.4 million in FY '74. These figures represent undepreciated value of buildings and facilities at Albuquerque, Livermore and Tonopah.

Purchases by Sandia in New Mexico amounted to \$30.5 million for FY '75. More than 99 percent, or \$30.4 million, went to Albuquerque firms. Purchases in the state in FY '74 amounted to \$30.7 million.

## Saturday Is Broadcast Day

"Shabbaton," a weekly public service program of radio station KZIA (1580), is presented by the Jewish Community Council of Albuquerque. The Council administers Jewish welfare programs and contributes to various charities. Mort Lieberman, a chemist in Materials Analysis Division 5825, is vice president of the Council and heads its Community Relations Committee. George Cosden, a procurement analyst in Purchasing Methods Division 3732, is chairman of its Intergroup Relations Sub-Committee. These two Sandians help produce Shabbaton, a Hebrew term for Sabbath discussion.

"The purpose of the program," Mort says, "is to air news and happenings about things Jewish in an informative and entertaining manner." The program includes cultural and religious features, as well as local and international news of interest to Judaism. Prominent visitors and local residents are interviewed, books are reviewed, and intercultural problems are discussed. "We always have music," George adds, "which I present with a brief explanation and translation of the Hebrew or Yiddish. We also discuss our customs, for instance the culinary delights of our religious holiday foods."

Twenty volunteers put the program together. Each show is prerecorded during the week. "It's a lot of work," Mort says, "and a lot of fun." For 45 minutes of air time, Mort figures the group puts in about 60 man-hours.

KZIA carries the program each Saturday from 12:10 to 1 p.m. "Tune us in," says Mort. "We often get ideas for future programs from the comments, calls and letters we receive from our audience."

### Congratulations

Mr. and Mrs. Ron Jacobson (5131), a son, Jeff, July 9.

Mr. and Mrs. James Hill (Debi, 5131), a daughter, Jamie Sue, June 21.

Mr. and Mrs. Gerald Cessac (2316), a son, Kirk Joseph, July 11.

Mr. and Mrs. Leroy Holmes (3616), a son, Marquez, June 12.

## Five Major Changes

# ERDA Energy Plan Submitted to Congress

ERDA has submitted to Congress a National Energy Research, Development and Demonstration Plan that outlines priorities for the development of energy resources and proposes five major changes in the nature and scope of the Nation's energy RD&D program.

ERDA Administrator Robert Seamans, commenting on the Plan, said: "We have a serious and continuing energy problem. Our problem now is that we are limited in our choices. More than 75 percent of our energy comes from oil and gas — a dwindling resource. About 20 percent of our energy is imported.

"The United States must shift to new primary forms of energy. Twice before, it has happened: from wood to coal in the 19th century and to oil and gas in this century.

**ERDA Administrator Robert Seamans was a visitor to Sandia Labs yesterday, July 24. Mr. Seamans was briefed on Labs programs and toured Labs facilities.**

Each time it took about 60 years to reach maximum use. We cannot afford to take another 60 years to accomplish the changeover we need now."

The ERDA plan establishes priorities for three time periods — the near-term to 1985, the mid-term 1985 to 2000, and the long-term after 2000.

Under the plan, five changes must be made in the Nation's energy research, development and demonstration program:

- Emphasize the overcoming of technical problems inhibiting expansion of major energy sources, notably coal plants and light water nuclear reactors.

- Focus immediately on energy conservation. Primary targets are automotive transportation, industrial processes and energy use in buildings.

- Accelerate commercial capability to extract gaseous and liquid fuels from coal and oil shale.

- Include solar electric as a high priority

among energy resources of the future, joining fusion and the breeder reactor in this category.

- Increase the attention to underused new technologies that can be rapidly developed, principally solar heating/cooling and the use of geothermal power.

In the near-term, until 1985, the plan places priority on expansion of existing major energy systems: coal, nuclear (light-water-cooled reactor) and gas and oil, both from new sources and from enhanced recovery techniques in existing fields. Conservation, stressed throughout, can have an especially significant impact in the near-term simply by application of known techniques.

In the mid-term, 1985 to 2000, the development of new processes to produce synthetic fuels from coal, to extract oil from shale, and to increase use of fuel forms such as solar heating and cooling and geothermal energy, and to extract more energy from waste heat would be accelerated.

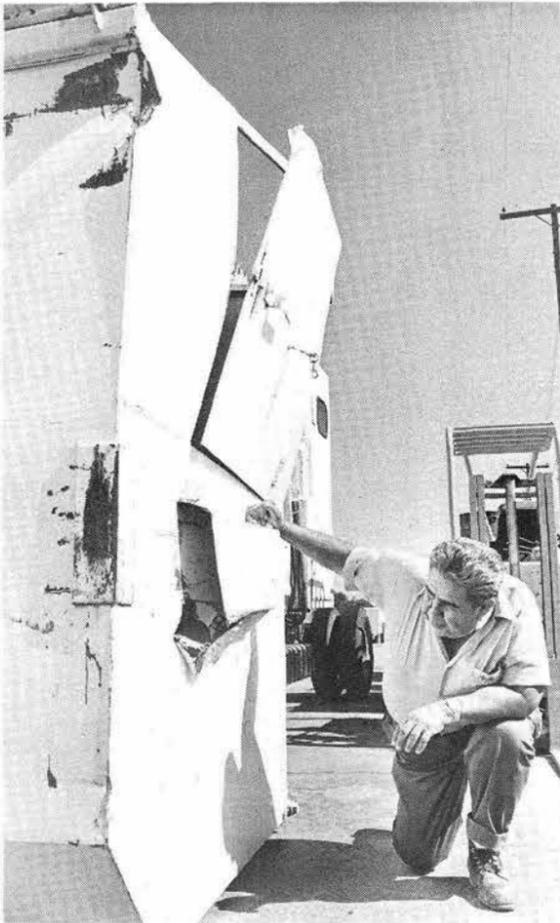
For the long-term (2000 and beyond) the plan calls for vigorous pursuit of three essential inexhaustible resources — solar power, fusion power and the breeder reactor.

ERDA stresses the point that in order to deal effectively with the energy problem, the task of creating choices for the future must be addressed now on an urgent basis. "Changeover" time to convert to new forms of fuel must be shortened and, while new choices must be developed for the future, care must be taken to avoid the foreclosure of energy options because of overemphasis on a single approach.

Under the Energy Research and Development Act of 1974, ERDA is directed to submit to Congress a comprehensive plan for energy research, development and demonstration dealing with near-term, mid-term and long-term energy needs, together with a detailed program to implement the plan. The two-volume report contains such a plan and proposed implementation.

ERDA plans to conduct public meetings in major cities throughout the country on its National Plan and RD&D programs beginning in the fall.

Copy of Vol. I of the ERDA report (ERDA-48) is now available in the technical library.



**BE KIND TO DUMPSTERS** — One 4x4 plus one dumpster = one sick dumpster. When Max Lopez (9754) tried to empty this dumpster into his truck, the 4x4 ran amuck and crunched the dumpster. Max's plea: pile big wood, metal, rocks, wallboard, giant diamonds and other unyielding stuff next to the dumpster for separate pick-up.

## Now at the Gates

"It's almost back-to-school time," says Ruth Brooks in the Education Training Dept. 3130. "Catalogs of Fall Out-Of-Hours courses are now available. In a week, look in the yellow boxes near the gates, find a course for your personal development, and sign up."

## New Film Has Impact

Safety meeting organizers, take note. An 8½ minute film, "Dummy Missile Project," is now available through Safety's Lee Stinnett, 4-2443. The film depicts the impact of a vehicle with a concrete wall at 52 mph; two dummies, one seat belted, the other not, go along for the ride. Terrible things happen!

## Sympathy

To Manuel Sanchez (9718) on the death of his mother-in-law in Albuquerque, July 8.

To Henry Saavedra (3725), on the death of his father-in-law in Albuquerque, June 26.

To C.M. Laskowski (3613), on the death of his brother in Chicago, July 6.

To Arthur Wickman (3613), on the death of his sister in Covina, Calif., July 13.

## ENERGY SAVINGS

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

ELECTRICITY	BASE PERIOD 92276 MWH	20.9% SAVED
	1975 72961 MWH	

STEAM PLANT FUEL EQUIV. OIL	BASE PERIOD 224583 BBLs	12.3% SAVED
	1975 196976 BBLs	

VEHICLE MILES	BASE PERIOD 2,468,000 MI.	24.6% SAVED
	1975 1,860,000 MI.	

## Business or Pleasure

# New Car Rental Discounts

Taking a vacation? This summer you might want to give your car a vacation too — leave it at home and travel by plane, train, or bus, then rent a car at your destination. Car rental discounts for Sandians are better than ever before.

In all cities in the country (save those listed below), Sandians get a 35% discount from Avis and (effective Aug. 1) an identical discount from Hertz. The discount applies whether you use the car on company business or on family sightseeing trips.

In the following cities, discounts are even greater if you use these rental companies: San Francisco and Las Vegas-National; Los

Angeles and Kansas City-Thriftly; Albuquerque and Amarillo-Avis.

For discount billing purposes, Hertz wants a special identification card (available in Traffic and in Finance); the others accept a Sandia identification card. Don't, of course, bill personal rentals to Sandia.

So compare costs for your car versus a rental at *current gas prices* — and then crank in a factor which represents the tedium of tooling along hour after hour, the danger of driving, and the probability of popping a piston in Peach Springs, Ariz. You may well decide a rental car is the answer.

## 62¢/gallon

# Gas Prices Rise Again

So what else is new? Well, one thing new is that it's no longer an Arab embargo inflating gas prices. Taxes here have raised the price already, and the OPEC nations have scheduled another price increase for September. We won't see 1972 prices again.

"The long-range price trend for oil — and for all energy sources — is up," says John Hill, Deputy Administrator of the Federal Energy Administration. Most other experts, though they may disagree about the causes, agree with Hill on the trend.

Like it or not then, you're going to be spending more for a gallon of gasoline than you've ever spent before. One way to cut the expense is to drive less.

How about a car pool? Dial 4-RIDE for

information on how to join an existing pool or create a new one.

Or how about one of the nine special commuter buses? If you're near one of the routes (see the table), a bus is one of the cheapest (and most relaxing) ways to get to work. Many Sandians walk, bike, or even drive a mile or two to get a bus stop. It's worth checking and trying. Again, more information at 4-RIDE.

Ironically, just as the gasoline price starts spiraling upward, the ridership of two of the specials has dropped. If you ride either the South Valley or the Mountain Bus, it's time to convince neighbor non-riding Sandians to become regular riders. South Valley bus service ends within a month *unless* a dramatic increase in ridership is apparent.

## SO CUT IT OUT

<b>Sandia #1 (30c)</b>	San Pedro & Constitution 7:25	Mickey's Dairy, Coors 7:00
Girard & Central 7:00	San Pedro & Kathryn 7:35	Coors & Barcelona 7:03
Girard & Indian School 7:05	In Gate 1, out Bldg. 878	Barcelona Elementary School 7:06
Carlisle & Candelaria 7:11	Eve: Bldg. 878, reverse 4:35	Barcelona & Hiway 85 7:08
Louisiana & Candelaria (east on Candelaria) 7:21	<b>Sandia #5 (30c)</b>	Camino del Valle & Hiway 85 7:11
Wyoming & Menaul 7:29	Carlisle & Menaul 7:05	Muniz & Hiway 85 7:14
Wyoming & Central 7:38	Carlisle & Comanche 7:10	Le & Highway 85 7:17
In Gate 1, out 10	San Pedro & Comanche 7:15	Jerry's Market, Hiway 85 7:21
Eve: Gate 10, reverse 4:37	San Pedro & Constitution 7:22	In Gate 1, out 10
<b>Sandia #2 (30c)</b>	(loop around Twain school)	Eve: Gate 1, 10, reverse 4:36
San Pedro & Comanche 7:08	Louisiana & Constitution 7:30	<b>Mountain (60c)</b>
Wyoming & Comanche 7:14	In Gate 1, out Bldg. 878	Frost Rd. & Valle Hermosa 6:55
Morris & Comanche 7:20	Eve: Bldg. 878, reverse 4:35	Frost Road & Sandia Knolls 6:58
Morris & Lomas 7:30	<b>Bosque (50c)</b>	Hiway 44 & Linea del Cielo 7:04
In Gate 6, out 1	Johnnie's Shell 7:10	Sandia Park Post Office 7:05
Eve: Gate 1, reverse 4:38	Peralta Post Office 7:14	Cedar Crest Hardware 7:09
<b>Sandia #3 (30c)</b>	First Natl Bank, Bosque 7:18	Pinyon Ridge 7:11
Carlisle & Montgomery 7:05	Isleta Bridge 7:21	Pulloff N of Stop N Shop 7:14
San Pedro & Montgomery (then north & east) 7:10	In Gate 1, out 10	Cedar Crest Post Office 7:16
Louisiana & Osuna 7:15	Eve: Gate 1, 10, reverse 4:36	Casa Loma Road 7:18
(then loop via Penn.)	<b>Belen/Los Lunas (75c/50c)</b>	Cedar Crest Tastee-Freez 7:19
Louisiana & Arroyo del Oso 7:21	Garley's Bar, Belen 6:41	N-10/14 & US 66 7:22
Louisiana & Comanche 7:25	Ranchers Bank, Belen 6:45	S-10/14 & US 66 7:23
Louisiana & Menaul 7:30	Belen Butane 6:50	In Gate 6, out 1
In Gate 1, out 10	Los Chavez Baptist Church 6:55	Eve: Gate 1, reverse 4:36
Eve: Gate 10, reverse 4:38	Simon Neustadt's, Los Lunas 7:03	<b>Fares:</b> One-way fares shown. Correct change or Bus Pass (from carrier or from Credit Union).
<b>Sandia #4 (30c)</b>	Valencia "Y" 7:08	<b>Stops:</b> Any corner along city routes. Listed stops only along rural routes.
University & Indian School 7:10	In Gate 1, out 10	<b>Shuttle service:</b> All buses connect morning and evening at Bldg. 839 with shuttles to Areas III, V, and Coyote.
Washington & Indian School 7:16	Eve: Gate 1, 10, reverse 4:36	<b>More info:</b> 4-RIDE (264-7433).
(south; loop on Estrellita)	<b>Far South Valley (50c)</b>	
	Los Padillas & Coors 6:55	
	Romero's Conoco, Coors 6:57	

## Take Note

The Reactor Operations Division and Trinity Section of the American Nuclear Society are sponsoring a conference on Reactor Operating Experience. The meeting will be held at the Hilton Inn in Albuquerque, Aug. 3-6. Jeff Philbin (5221) is general chairman; Bob Jefferson (1814) is coordinating the technical program; Lloyd Bonzon (1721) is handling hotel liaison; Bill Snyder (1800) is in charge of publicity; and Jon Resucher (5221) has arranged for tours at LASL and of the pulsed radiation sources at Sandia.

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The Institute of Environmental Science has issued a call for papers for its 22nd Annual Technical Meeting and Equipment Exposition, April 25-28, 1976, in Philadelphia. Subjects for the technical sessions, working groups and career guidance sessions are: acoustics, shock, vibration, testing, instrumentation, environmental protection, environmental education, ecology/pollution (noise, air, water), transportation environment, technical management, data acquisition, seismic test, computer methods, solar simulation, data processing, nuclear energy, fossil energy, wind energy, industrial contamination, standards, artificial environment, communication, specifications and training.

For more information contact: B.L. Peterson, Ex. Director, IES 940 East Northwest Highway, Mt. Prospect, IL 60056; or send abstracts to: T.J. Sereno, Tech. Program Chairman, TRW Systems, M-1, 1270, One Space Park, Redondo Beach CA 90278. Deadline for submission of abstract is Aug. 15, 1975.

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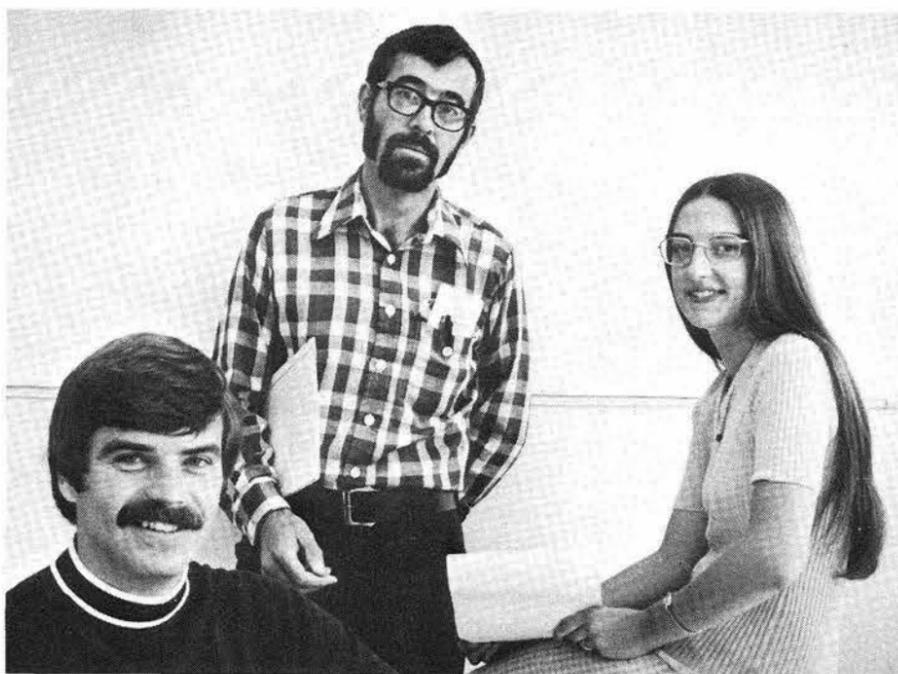
Marvin Beckett (5200) is the new chairman of the New Mexico Section of the American Society of Mechanical Engineers. He replaces Tom Lane (1540) who is now a member of the board of directors. Other new officers include Vice-Chairman Tom Feldman of UNM, Secretary Bill Alsheimer (1563), and Treasurer John Anderson (1561).

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The Heart Education Research Society is holding its 2nd annual art auction tonight (till 9 p.m.) and tomorrow (10 to 6) at Winrock Shopping Center. Proceeds from the auction will be used to continue the Society's program of free screening of people to detect heart abnormalities and high blood pressure. Free blood pressure tests will be given during auction hours. The auction itself consists of submitting a closed bid for the art object of interest. Over 16,000 persons to date have been screened for blood pressure throughout the state.

\* \* \*

Question: Which employee holds the record for the longest period with no sickness absence? We can't give you an absolute, certified-correct answer, but Roger McKenzie (2120) will be hard to beat. After 24 and a half years or so, Roger reluctantly took a few days of sick leave for eye surgery. He's working now on his next unblemished 24 years.



SUMMER EMPLOYEES in Department 5710 are Jim Strickland, Eldon Boes and Audrey Perino.

### In Department 5710

## Summer Employees Lending Labs A Hand

Through the years, Sandia has developed a number of programs which bring people involved in education into the Laboratories for summer employment. Three of these — the Sandia Work/Study program, Summer Faculty Employment, and One Year on Campus program — are represented this summer by people in advanced Energy Projects Department 5710. LAB NEWS discussed their work with them.

\* \* \*

ELDON BOES, assistant professor of mathematics, New Mexico State University, came into the Labs initially under the Summer Faculty Employment program but has remained for a year during his sabbatical from State. Eldon has been gathering solar radiation data for Solar Energy Systems Division 5717.

"This has been beneficial for me," he says. "I had no experience in industry before coming to Sandia. I've been telling my math students for years that careers existed in industry working alongside scientists and engineers. Now I can give them specific information."

Eldon has been at New Mexico State for six years. In addition to teaching formal classes, he also directs the Math Learning Center where some 500 students per semester work on individualized courses at their own pace.

Eldon is presenting a paper next week at the International Solar Energy Society meeting in Los Angeles which reflects his work at Sandia. Title is "Estimating the Direct Component of Solar Radiation."

"I enjoy teaching," he says, "and I'm looking forward to returning to the classroom. I also get satisfaction from research. I intend to continue work in solar energy."

\* \* \*

JIM STRICKLAND, assistant professor, mechanical engineering, Texas Tech, has worked at Sandia this summer on aerodynamic computations and prediction models for the performance of the vertical axis wind turbine. At Tech last year, he directed development of a 15-foot wind turbine similar to that atop Bldg. 802. He has also helped plan a 55-foot wind turbine in Solar Energy Project Division 5712.

"Very exciting work," Jim says. "I appreciate the systems approach and computer resources of Sandia. The systems approach will be very helpful next year at Tech where we will be working under NSF grant to develop a solar energy system for cattle feed mills."

\* \* \*

AUDREY PERINO is working this sum-



SIM ROMERO (5717) is one of 12 Work/Study program participants at Sandia this summer.

mer in Solar Energy Systems Division 5717 developing cost analyses of solar energy systems. She is participating in the One Year on Campus (OYOC) program. With a BS in math and economics from Oberlin College, she has another year at University of Michigan before earning her Masters in applied economics and joining Sandia full time.

"It's very satisfying," she says, "to be in on the beginning of new and important concepts in future energy systems. Cost is an overriding consideration in planning, and I'm happy to contribute the economist's viewpoint. There are so many factors to consider — capital investment, installation, maintenance, operation and amortization. It's exciting, but sometimes frustrating. Many of the needed data do not exist."

\* \* \*

SIM ROMERO, a participant in Sandia's Work/Study program, is having a "great time" helping with computer programming in Division 5717. He will be returning to UNM in the fall; under this program Sandia pays cost of tuition and books. Participants also receive a small stipend from Sandia.

"For a student, it's exciting to see textbook information mesh into real problems and do useful work," Sim says. "What I learn at Sandia will be invaluable next year."

Sim qualified for the Work/Study program with his high grade point average at Manzano High School. He is heading toward a chemical engineering degree but is loading his class schedule with computer science courses and wants to try biochemistry.

"The thing that impresses me most at the Labs," he says, "is the team spirit. In school, you work alone. Here you are part of a team. Your contribution is appreciated. You can see the work progress. And if you need help, there are experts around who will take the time to explain. I appreciate that."

## FUN & GAMES

*Sandia Bowling Ass'n.* — New officers for the coming season are Verne Christy (9542), president; Bob Statler (1133), VP, Sadie Knight (1115/1116), sec./treasurer; Aurora Baca (3152), women's rep; Wally Granfield (1590), men's rep; and Gary Miller (5842), tournament director. Joe Stiegler (9480) continues as Recreation Council representative.

\* \* \*

*Boating* — Carl Boxx (3616) has sent LAB NEWS a Coast Guard summary of recreational boats and engines that have been recalled for sometimes major, sometimes minor problems. For example, the '73 and '74 18-foot Sportsman Powercraft is over-rated in horsepower capacity, while the 16-foot Tournament Tide Craft has insufficient flotation. Theoretically, first owners of these boats and engines have been notified of the difficulty. But this isn't always the case, and you may wish to check the list, which runs to seven pages, in the LAB NEWS office. No phone inquiries, please.

\* \* \*

*Sandia Golf Ass'n. (Women)* — Winners and runners-up in the June 14 Belen Tournament were: First flight: Pat Anderson (9415), low gross winner and Pat Hefley (3141), runner up; Joan Gillon (5700), low net winner and Lillian Mancuso (3321), runner up. Second flight: Helen Watkins (3721) low gross and Clara Gearhart (3141); Alice Smith (3141), low net and Liz Bookwalter (9631); Kathy Brady (212), low putts.

Results of the July 12 Los Alamos Tournament were: First flight: Lillian Mancuso, low gross winner and Emma Hollingsworth (4257), runner up; Sybil Milligan (Ret.), low net winner and Joan Gillon, runner-up; Pat Anderson, low putts. Second flight: Kathy Brady, low gross and Pat Hefley, runner up; Alma Mischke (4152), low net and Liz Bookwalter, runner up; Tess Reis (4124), low putts.

\* \* \*

*Wilderness perils* — Gerse Martinez of LAB NEWS returned from a recent three-day trip into the Pecos Wilderness to find his car broken into and sacked. He learned that the incident was occurring with increasing frequency in the northern wilderness areas. The local mafia types spot a parked vehicle on the edge of the wilderness and correctly conclude they have time to work it over because the owner is likely gone for a few days. Unfortunately, outdoor survival courses don't cover this exigency.

\* \* \*

*Sandia Bicycle Ass'n* — Gordon Pike (5155) advises that Albuquerque's bikeway pilot plan is proceeding nicely and that some 30 miles of bikeways should be ready for use later this month in the city. The bikeways will be evenly divided between bike routes (sign-designated routes for bikes) and bike lanes (a lane on the right side of the road defined by a painted stripe). There will be an official "opening" of the bikeways on Sunday morning, Aug. 3 at 10 a.m., and plans are for three zillion cyclists to show up and make the circuit. Meet at Carlisle and Constitution for the ceremonial opening.



CRAIG JONES (2647) displays model brass cannons. The pieces took hundreds of hours in his home workshop to build.

## Craig Jones Builds Brass Cannons

Craig Jones, supervisor of Data Processing Systems 2647, was wandering around the flea market one morning last January when he spotted what looked like the barrel of a model brass cannon. Sure enough, it was; but it was in terrible condition.

A couple of bucks and a couple of months later, it was a mint display piece gleaming brass, spoked wheels with brass rivets, fixtures and an oak carriage.

"I sort of eyeballed the barrel and built something that I thought might look right," Craig says. "It worked out fine but it bothered me that it was not an authentic scale model. So I did some research."

Craig gathered literature and finally zeroed in on an American revolutionary war cannon. He made scale drawings and started to work. Hundreds of hours later, the second

cannon surpasses the first. Oak, painstakingly shaped in his home workshop, was used for the wood parts of the cannon assembly. All other fittings are brass. The second cannon is complete with accessories — tool box, powder barrel, powder ladle, wadding and water buckets, swab, tamper, and something called a "worm."

"I'm looking for something to use as cannon balls," he says.

Now that the cannons are finished, Craig looks at them once in a while and then packs them away.

"With so much burglary going on, what can I do? Maybe I'll donate them to a museum some day."

However, one of these days, Craig plans to fire the larger cannon.

"A big bang for the Bicentennial," he says.

*Big game hunting* — The Game Commission has adopted a 16-day big game season, divided into three periods, to run from Nov. 8 to 23. Division of the season into three periods is expected to distribute hunter pressure more evenly throughout the season. Hunters may hunt only for the single period which they elect: Nov. 8 & 9, Nov. 11 through 16, and Nov. 15 through 23. Deadline for application for elk, bighorn sheep, and antelope licenses is Aug. 8. More information is contained in the big game hunting proclamation, scheduled to be off the press July 18.

\* \* \*

*Coronado Ski Club* — Frank Biggs (5223), trip chairman for the coming season, has come up with 11 trips, starting out with a

3-dayer to Wolf Creek early in December and concluding, in March, with an Alta/Snowbird package in Utah. In between there are Telluride, Steamboat, Big Sky, Taos, Snowmass, Vail, Keystone, Crested Butte, and Purgatory. All except the Taos trip offer bus transportation. Trip captains have been selected, and it's first come, first reserved. Call Frank on 4-7367 if you haven't received a copy of the schedule.



# MILEPOSTS

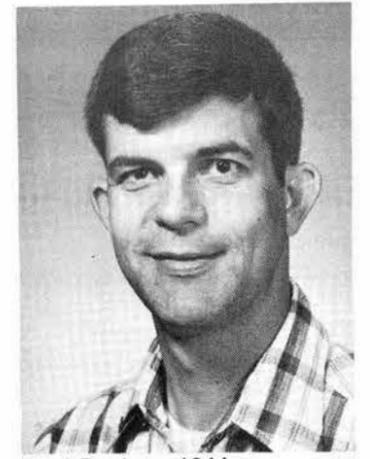
## LAB NEWS

July 1975



Tony Jojola — 3622

10



Paul Beck — 1244

10



George Banos — 212

20



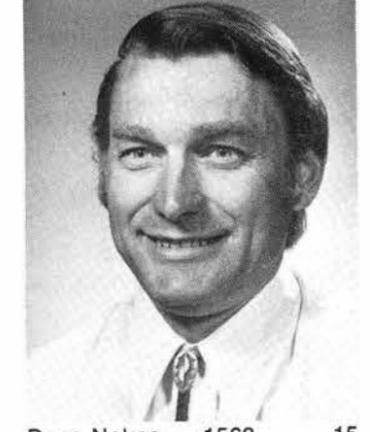
Bill Jackson — 4275

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Patrick Walter — 9486

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Dave Nokes — 1563

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Bruce Wickesberg — 1241

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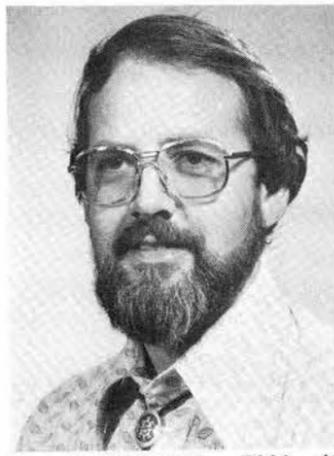
Tony Gabaldon — 9754

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John Freeman — 5241

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Bennie Blackwell — 5628

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Arthur Hardeman — 4276

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Lewis Hanchey — 1232

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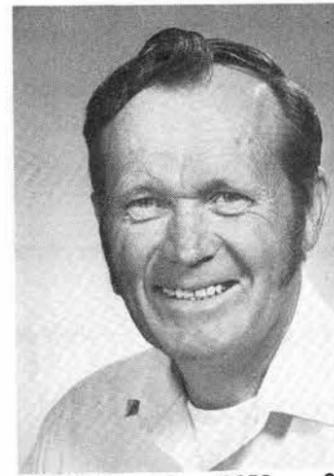
Dick Othmer — 1544

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Billy Yates — 9633

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Marvin Ozmun — 9652

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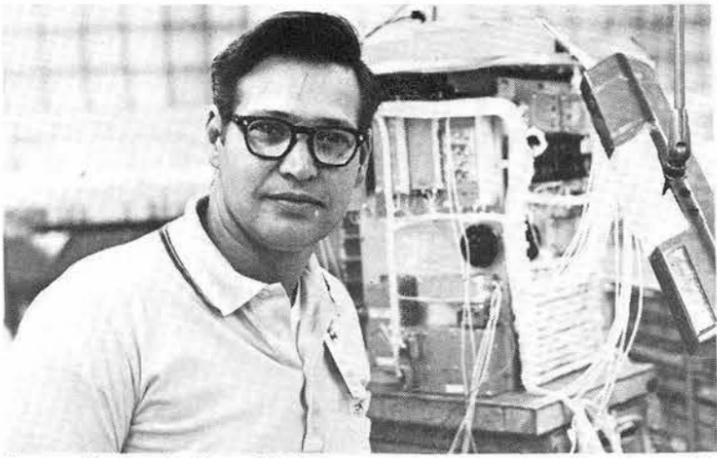
Helen Agats — 3613

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Charles Mayer — 9622

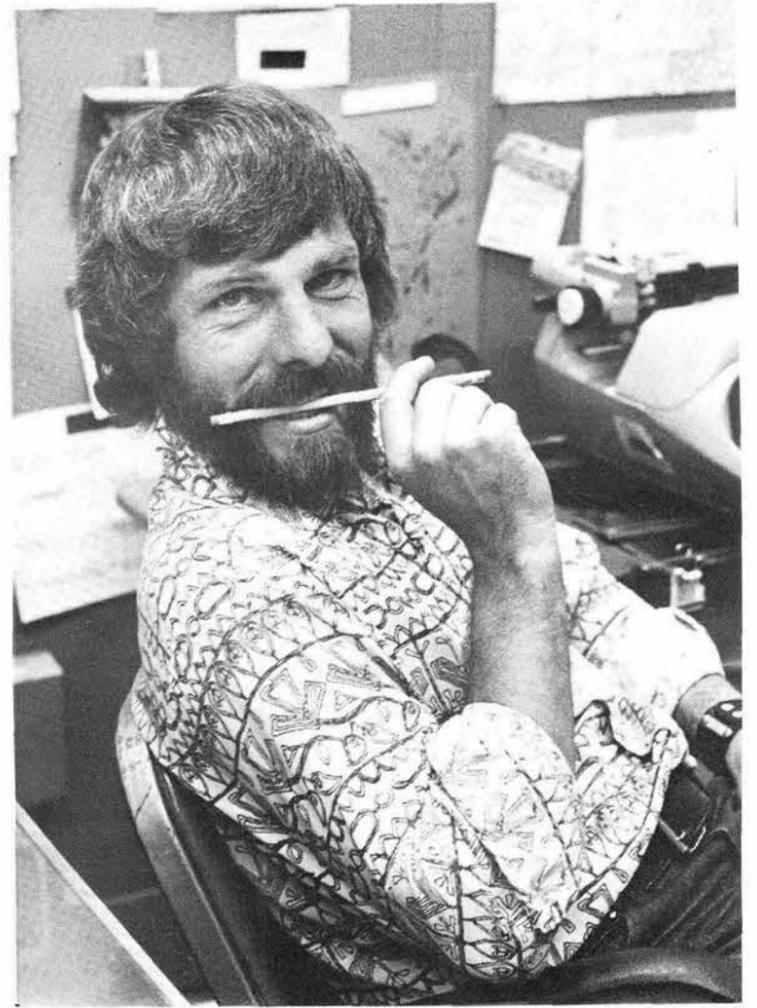
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James Carmody III — 3622 20



Bob St. Hilaire — 8185 10



Bruce Hawkinson — 3162 10



Don Munro — 8333 20



Christopher Olson — 4732 10



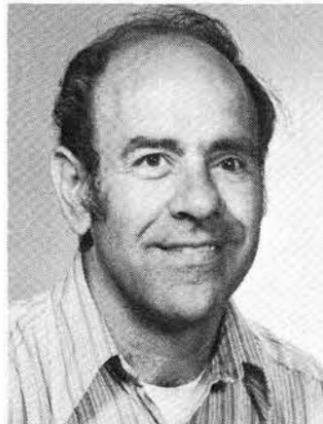
Bill Myre — 1240 25



Bob Blount — 4150 25



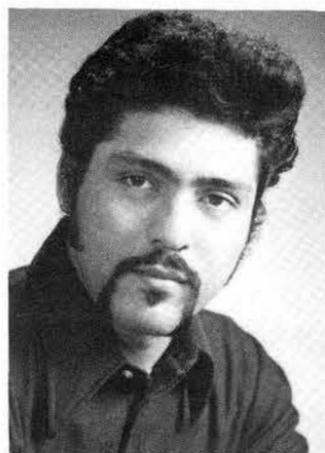
Billie Pierce — 9412 25



Dave Sample — 9351 25



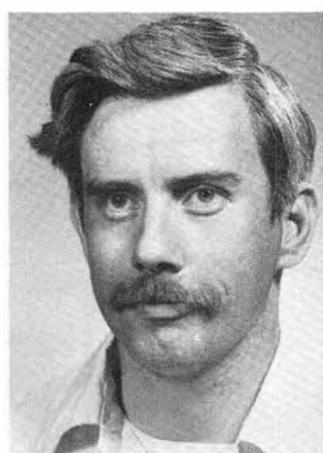
Jake Sandoval — 9553 20



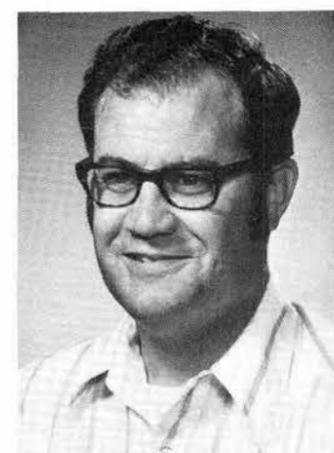
Jess Castellon — 8431 10



Joseph Rodzewich — 9651 15



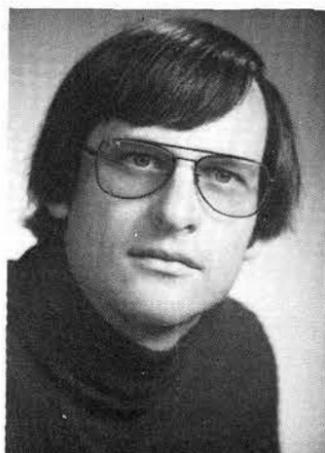
Robert White — 5151 10



Jon Barnette — 2336 15



Gerry Rohwein — 8416 15



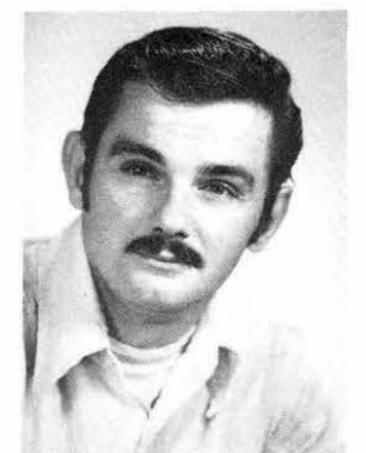
Bill Ashurst — 8115 10



Robert Moll — 9515 20



Christine Baca — 4270 20

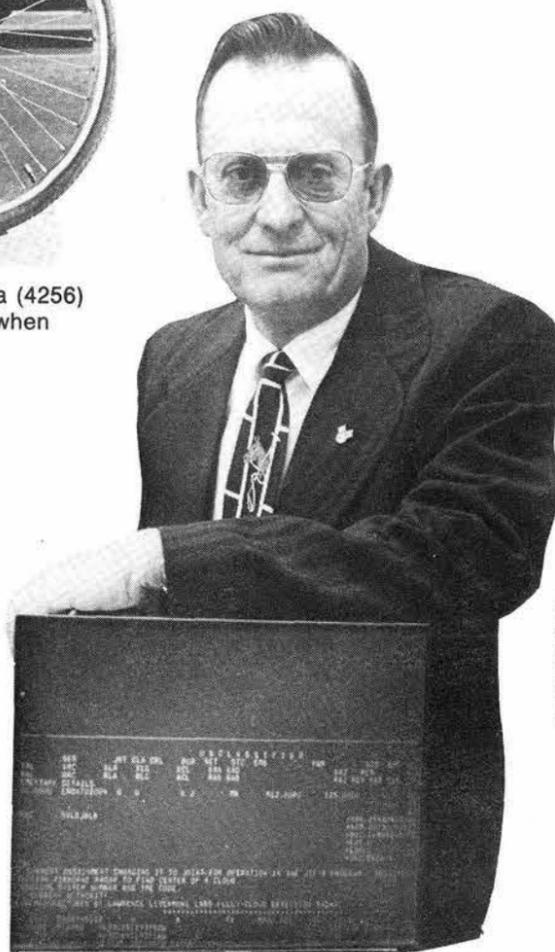
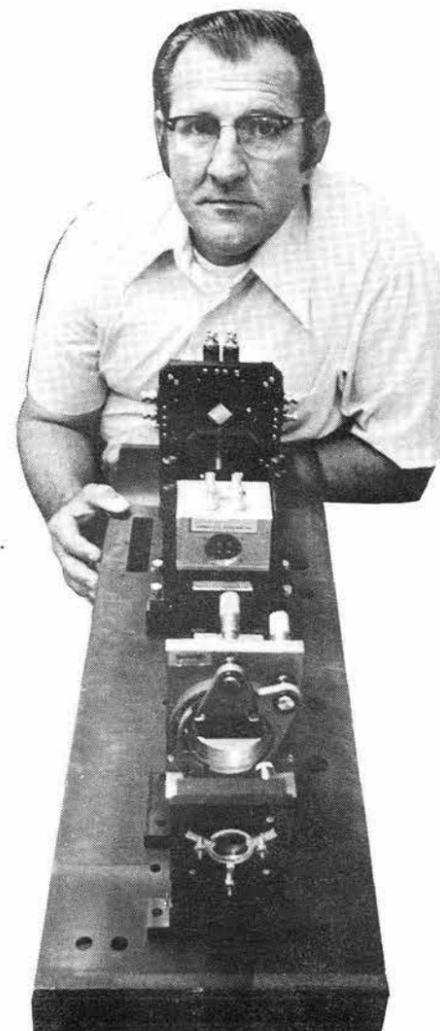


Bob Tirnetta — 8257 10



STANDING ON THE CORNER, Constitution and Carlisle, Laura Garcia (4256) is waiting for other bikers to join her there Sunday morning, Aug. 3 when Mayor Kinney officially opens the Albuquerque Pilot Bikeway. Ceremony is set for 10 a.m. and will be followed by mass bike ride over the new bikeways.

MURPHY LANDRY (2441) recently presented six different lectures in three days at the Auburn University Graduate School. He introduced plasma physics students to Q-switch lasers, mode control, tunable sources and pulsed holographic techniques.



BOB GENTZLER (9411) is Sandia's frequency coordinator. Depending on field operations and locations, Sandia uses about 100 communications networks and about 1000 frequencies.

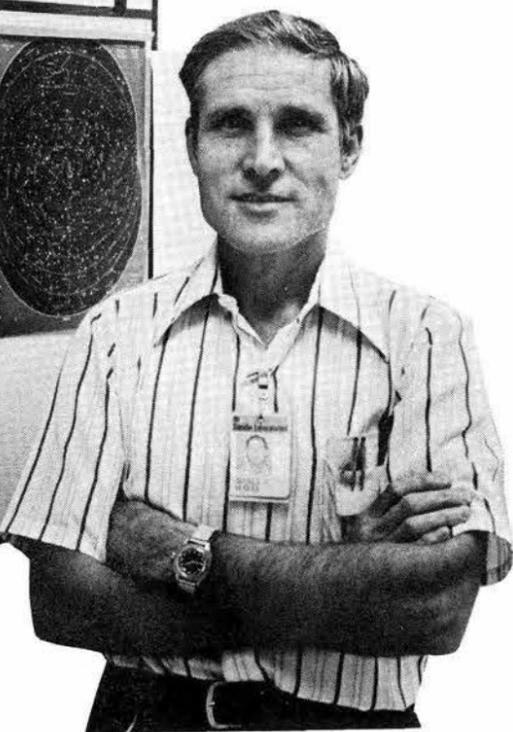
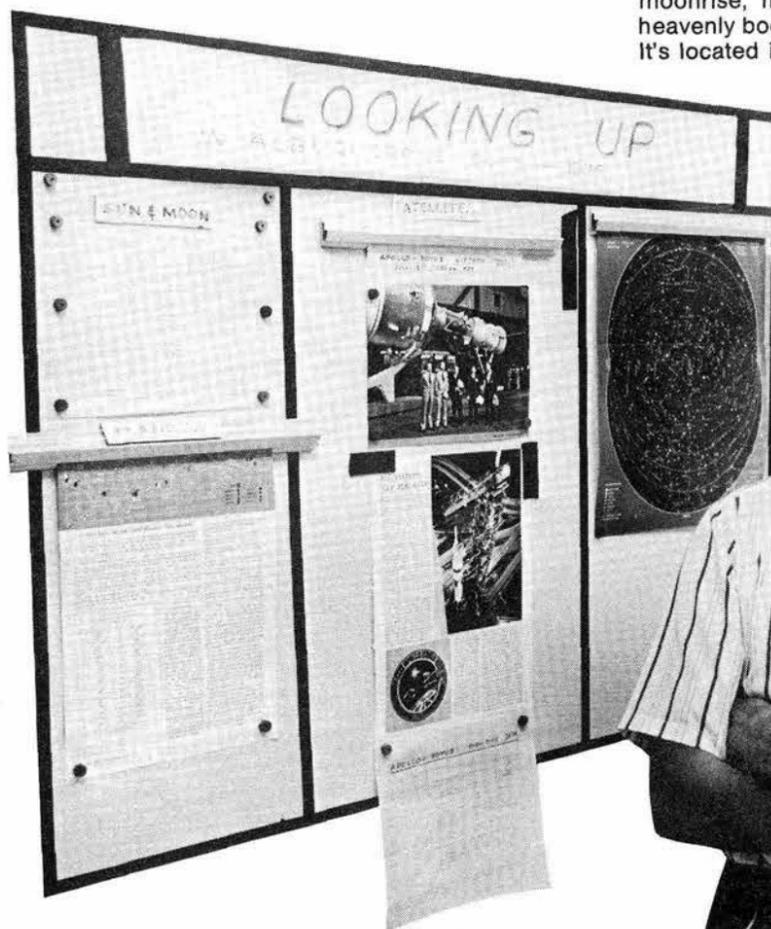
# sandia PEOPLE Report

GROVER HUGHES (1243), Sandia astronomer, maintains a bulletin board with latest scoop on space missions, satellites, moonrise, moonset, etc., and times various heavenly bodies are visible from Albuquerque. It's located in Bldg. 880, near X-22.

## SI METRIC THE INTERNATIONAL SYSTEM OF UNITS



MARVELE NETHERTON (3647) found out from the Metric Information Center in Bldg. 840 that she's 174.5 centimeters tall, weighs 65 kilograms. The Center has literature and displays plus a metric scale for weighing and a ruler for heighting.



## Retiring



Bill Treharn (3644)

## Events Calendar

**Through August 17** — Barn Dinner Theatre: "Finishing Touches," 281-3338.

**July 25-26-27** — Old Town Studio: "The Diary of Anne Frank," 8 p.m., July 27, 2 p.m. only.

**July 25-27, 31, Aug. 1-3** — Corrales Adobe Theatre: "The Little Foxes," 8:30 p.m.

**July 26** — Santiago's and St. Anne's Day, Buffalo and Corn Dances. Santa Ana Pueblo.

**July 26-27** — Annual Puye Cliff Ceremonial, Arts and Crafts Show, Puye Cliff Ruins; Santa Clara Pueblo.

**July 26-27** — Appaloosa Horse Show, 8 a.m., Arena, State Fair Grounds.

**July 27** — New Mexico Mountain Club, San

Pedro Park — San Jose Trail, hike 10 miles, 7 a.m., Gulf Mart.

**Aug. 2** — Old Pecos Bull Dance (includes former Pecos Pueblo Celebration), Pueblo Office, 834-7445, Jemez Pueblo.

**Aug. 2-10** — New Mexico Mountain Club, Climbing in the Tetons, more info. from John Allen, 299-9075.

LAB NEWS  
PAGE ELEVEN  
JULY 25, 1975



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

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

#### RULES

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

#### FOR SALE MISCELLANEOUS

- GUITAR, hollow body, electric w/four pickups, amplifier has tremolo & reverb. Montoya, 883-9115.
- CHILD'S rocking horse. Hall, 298-8617.
- MOVING: 16'x31' pool, all equipment; cement mixer; radial arm saw; tractor; trio geese; girls bike, mono speed. Richardson, 865-9505 or 865-5531 after 6.
- TRI-BAND 3 EL beam, hy-gain model TH3 MK2, \$75. Richardson, 268-7843.
- MOBILE home in Mountainair, New Mexico, on 2 city lots, 14 x 71 plus 12 x 25 den. Wynn, 847-2464.
- LARGE Whirlpool Automatic Washer and Dryer Combination, old but runs good, \$40, Denish, 256-1559.
- COUCH & chair, \$80; refrigerator, \$30; kitchen table w/4 chairs, \$35; golden wheat china, service for 12, \$25. Chapek, 294-5462.
- TRASH BAGS, new stock, \$4/box, proceeds to S. Highway 10/14 Project, Lab News Office, Bldg. 832.
- BED, full-size, w/frame, \$50; Evenflo bottle kit, never used, \$5; GM love seat, \$8; century car seat, \$20. Miyoshi, 298-0666.
- BATHROOM lavatory, white w/faucets wall mounted, no chips, \$15; medicine cabinet, mirror door, recessed type, \$5. Price, 265-2327.
- COLLAPSABLE sewing table for portable sewing machine, 19"x42"x29" high, folds to 5" width,

- \$17. Bowers, 298-1992.
- FISHING flies, variety available, 25¢ ea., 5/\$1. Swanson, 299-7833.
- CONSOLE color TV, \$85; harvest gold 2-dr. refrigerator, 2 yr. old, \$180; electric range, yellow, \$45. Ortiz, 296-9758.
- SEWING machine, Sears Challenge, straight stitch w/cabinet, \$30. Pepper, 298-1947 after 5.
- 14" ELECTRIC chain saw, self sharpening, \$45; pipes & racks, cig. lighter w/built-in watch, cig. case, 3 Super 8 movie cameras. Berman, 296-5640.
- SONY F-98 Cardioid microphone, \$15; Weaver K-4W rifle scope, \$50; Crager SS mag wheels, Ford, \$60. Andrzejewski, 255-9404.
- ENGLISH Springer Spaniel, pure bred, all shots, \$30. Sanchez, 299-4119.
- YORK barbell set, 110 lb., iron plates, \$25; steel string guitar, almost new, \$40. Barnes, 898-2375.
- TWO matched Jim Lansing Minigon speakers, Harmon Kardon Citation IV 70 watt stereo amplifier, Scott tuner, Garrard turntable. Auerbach, 296-1489.
- FOUR Michelin tires, 800x16.5, XCA 2500 miles, retail \$90, \$65 ea. Peterson, 877-6398.
- WINDOW mount air conditioners, 3 of them. Swain, 265-0098.
- COMPLETE dark room equipment; enlarger, timer, easel, trays, filters, dryer, paper, etc. Benson, 268-9727.
- CHEAP or free, rear window for '54 Dodge 4-dr. Austin, 296-5195.
- 18 FT. Duratech aluminum runabout, 75 hp Evinrude outboard motor, 16" wheel tilt trailer, many extras, \$1600. Butler, 296-8095.
- BICYCLE, girls, banana seat, high rise bars, chrome fenders, training wheels, \$25; catalytic heater, adjustable 3000-5000, \$15. Shepherd, 299-9066.
- MAN'S bike, 3-spd., \$15; lady's hair dryer, \$10; 6-digit calculator, 4 function, \$15; portable carpet sweeper, \$6. Koletar, 255-

- 4751.
- TWO ranges; 5 piece dinette set; free kittens. Zamora, 243-4289.
- 3-BDR. mobile home, 12x56, stove & refrigerator only, \$3000. Davis, 281-3751.
- SHARE in 8 member flying club, '65 Cherokee 180, well equipped, IFR certified. Dawirs, 281-3630 or 881-1096.
- MINIATURE paintings, ceramic pots, plant hangers, some plants, embroidery work on your workshirts, etc., Shieves, 821-9285.
- EVAPORATIVE air cooler, \$100 or best offer. Markley, 293-4016.
- REGISTERED blue ribbon NM Arab Foal of '75, chestnut filly, Dame Cheyenne Cindy, Sire Gay Ar Ferneyn. Traver, 294-2138.
- 2 GARAGE doors, steel roll-up, 8'x7', 1 with tracks, 1 door only. Hansen, 898-3544.
- PENNCREST 21" TV, table model, b&w, \$55. Nasar, 294-6306.
- ELECTRIC ironer, \$25; 5-14" wheels, \$15; Sears adding machine, \$100; metal Executive desk, \$35; girl's bicycle, \$20. Meyer, 243-0567.
- CRYSTAL glass chandelier, 5 light, \$17; black iron Mexican swag lamp, \$8. Novotny, 296-7167.
- AUTO shop manuals, '69 Buick & '72 American Motors, \$3.50 ea. Brock, 299-2934.
- SEARS twin cylinder tractor, used about 20 hrs., 3 point hitch, mower, wheel weights, \$2000 value for \$1500. Brumley, 877-2667.
- BRAND new 5 pc. dinette set, \$75; chest, \$30; small appliances, household items. Lewin, 898-2303.
- B/W-COLOR TV repair equip.; scope, color gen., tube tester, curve tracer, tubes, etc. Tucker, 255-5335 after 5.
- 36" KENMORE 4-burner & griddle gas range; Clinton heavy duty chain saw w/26" bar; Go Kart frame & wheels. Mozey, 299-0349.

#### FOR SALE TRANSPORTATION

- '72 DUCATI 45-RT dirt bike, \$600 or make offer. Reinhardt, 296-1815.
- '72 GRAN TORINO, 4-dr., gold w/white vinyl top, AT, AC, PS, steel belted radials, less than 15,000 miles. Verardo, 255-6385.
- '59 FORD, 2-dr., 6-cyl., std. trans., 73,000 miles, \$100 or best offer. Horning, 296-2488.
- CHEV. Kingswood station wagon, book \$1850, sell \$1750; Schwinn, 3spd. girl's bicycle, \$50. Cano, 296-6955.
- '64 SLCH Harley Davidson Sportster motorcycle. Shock, 877-3728.
- '71 FORD Torino 500, fully equipped, PS, PB, AC, steel radials, 35,000 miles. Hubbard, 299-7818.
- '64 DODGE pickup, 1/2-ton, lwb, 4-spd., 318-V8, looks awful but runs good, \$550. Peterson, 877-6398.
- 10-SPD. light weight racer, 27", less than 300 miles, \$70. Coalson, 298-0061.
- 10-SPD. bicycle, German made, carrier & odometer, 75 miles, \$100. Thomas, 293-3241.
- '74 SUZUKI GT-550, \$1250. Mathes, 831-4851 after 6.
- '69 PONTIAC Catalina, AT, V8, PS, AC, below book, make offer. Payne, 299-5966.
- '71 FORD station wagon, radial tires, vinyl interior, low mileage, 1 owner, \$1595. Browne, 881-3772 or 345-0560.
- '74 PINTO station wagon, 2300cc engine, 4-spd., radio, luggage rack, new tires, 22,000 miles. Nelson, 869-9161.

#### REAL ESTATE

- 3-BDR. & den, all brick, dbl/garage home, landscaped, near Wyoming & Comanche, 6% mortgage, 8520 James NE. Randall, 298-6974.
- 10-ACRES 4 miles east of Edgewood on county road with power & shallow water, \$8500 with terms. Coalson, 298-0061.
- 3-BDR., study, workshop, or 5-bdr., Hoffman brick, 1900 sq. ft., landscaped,

with waterfalls, fruit trees, vegetable garden. Berman, 296-5640.

3-BDR. Roberson, dining room, large den, 2 fireplaces, new carpet, dbl/garage, near Sandia bus, schools, vacant, will refinance. Hughen, 296-2600.

#### FOR RENT

SANDIAN ON LOA has 4-bdr., nearly-new house for rent; NE Heights, entertainment designed family room, fp, lg. yard, no pets, available Aug. 15, lease, call Sherman, 821-0212.

#### WANTED

- MALE roommate to share 3-bdr. home in NE Heights, \$75/mo. plus minor chores. Gallo, 296-0112.
- USED alfalfa drill & fertilizer spreader. Harley, 898-0594.
- CHEST type freezer. Harrigan, 266-4143.
- WOOD doll house, between 18" & 36". Self, 296-9117.
- PLACE to live, Aug. 2-15, we'll maintain your home during your vacation. Boes, 256-0166.
- '68-'72 ECONOMY car, 4-cyl., hard top, stick shift, 2 seats. Leeman, 299-9149 after 5:30.
- NAMES of people experiencing failure with Firestone 500 steel-belted radials. Campbell, 255-9659.
- GOLF CLUBS, used, men's right-handed. Bag too. Kelsey, 266-6460.

#### LOST AND FOUND

- LOST — Ladies blue denim embroidered jacket, lost July 11 at the Coronado Club. Kelsey, 266-6460; Ladies wrist watch w/black leather strap; Hishi & turquoise earring; Silver pin shaped like a dog; Man's wire rim glasses w/case.
- FOUND — Man's brown rim sunglasses; Multi-color scarf; Man's wire rim bifocals w/black case. Lost and found, Bldg. 832, 4-3441.

FRIDAY	SATURDAY
25 — HAPPY HOUR SUPER SPECIAL BUFFET Adults \$3.40 Under 12 2.40 Denny on Stage TOGETHER	26 — 25th BIRTHDAY BALL J. Ray & I. Spots Cocktails @ 6 Shrimp Peel @ 7 Show & Dance @ 8 RESERVATIONS ONLY
1 — HAPPY HOUR NEW MEXICO BUFFET Adults \$2.75 Under 12 1.75 Thomás & Marcia FOUR TRENDS	2 — FAMILY VAUDEVILLE Judy Davis, Storyteller "The Wackiest Ship in The Navy" Food @ 6; Show @ 7 FREE TO MEMBERS

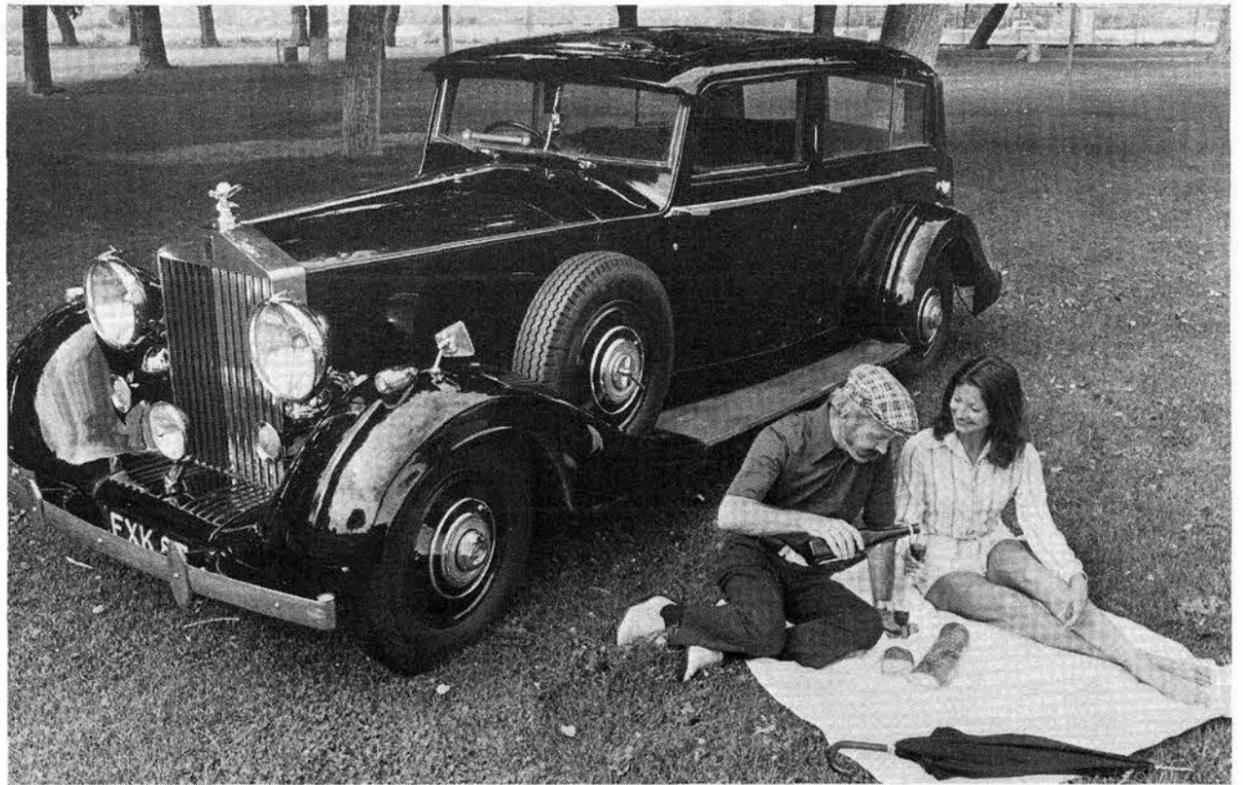
**AMATEUR** — storytellers, gather at the Club Aug. 2 and take notes on the delivery of a pro. Judy Davis is a master (mistress?) of the oral tradition, a spellbinding storyteller. Kids, adults, in-betweens — enjoy an almost forgotten art. It's part of Family Vaudeville.

**PHOTOGRAPHERS** — celebrities, old timers and new will gather tomorrow night for the Big Birthday Ball. Ink Spots, Johnnie Ray, Sol Chavez, and 500 makers of merriment. Sorry, ticket holders only. (Next time — in the year 2000 — the rest of us should get our reservations in earlier.)

**TAKE** — a bow this week, Felix Padilla. The infant social club you named 25 years ago survives and flourishes. And your cartoons are today a vital part of the C-Club page.

**A** — thank you too to Pete Gallegos and the Board, Dave Foster and the C-Club staff, PR-type Janet Vermillion, and all the other club organizations and people who put this whole week together. If you own a spare accolade, give it to them.

**DIM** — lights, cool drinks, forgotten cares, old friends and new (if your spouse isn't watching) — Happy Hours are all of



"A LOAF OF BREAD, a Jug of Wine," a '39 Rolls Royce, and Thou Beside Me in the Wilderness is Paradise Enow." Thus spake Ron Hill (5642) to Denise Orwig as they paused on their way to the C-Club.

these plus food. Tonight it's a Super Supper with ham, roast beef, lobster Newburg, and Denny (he's the one *under* the table). Next Friday it's a New Mexican Buffet with chili rellenos, carne adovada, beef tacos, and other Rio Grande goodies. New: hot hors d'oeuvres — 75¢.

**VIEW** — the battle of the bands Sunday from 11 on when the Mariachi Gala meets Der Polka Schlingels on the patio. Being in the brunch bunch costs just \$2.50 (not \$4.50) a mouth. Scrambled eggs, sausages, fried chicken, green chili stew, Danish rolls, and coffee. A great way to end the Birthday bash.

**OF** — course the Annual Meeting deserves your presence. Nominated for Board

positions are Bill Davis, Pete Gallegos, Bruce Hawkinson, Julian Lovato, Stan Meyer, Bud Rufsvold, and Joe Shelby. Nominate others from the floor if you like, but be sure their management acquiesces. New by-law changes: active members who retire may stay on as active members, can vote, hold office; all current dues-paying retirees are now considered active. Free snacks, open bar after the (short, probably) business meeting.

**THINGS** — that happen in *The Wackiest Ship in the Navy* shouldn't happen to a (sea) dog. Or to a Lemmon, like Jack, or to a Nelson, like Ricky. But they do. See the celluloid silliness Saturday the second at Family Vaudeville.

MORE INFO — 265-6791.

● MARIACHI ● DANISH ● DENNY ● PARADISE ● DENISE



feed **feedback**

**Q.** If I take early retirement, after age 55, Sandia's Basic and First Supplemental Group Life Insurance policies continue to provide me with paid-up coverage. Is this paid-up life insurance coverage provided in the same way if I am given a Sandia-approved disability retirement at any age before 55?

**A.** A person taking early retirement at age 55 has continued paid-up life insurance coverage if he or she has 15 years of service. For disability retirement the same applies because a person must have 15 years service to be eligible for disability retirement.

R.J. Edelman — 4200

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**Q.** Certain days of the year are of religious or cultural significance to employees who are American Indians. None of the present "designated holidays" take these Indian

customs into account. Why can't Sandia change its designated holiday practice to allow American Indians to select a day of significance to them?

**A.** Following receipt of your Feedback question, the entire matter of the limitation on what might be considered a "designated holiday" was reviewed. Your point that different groups and individuals might have different ideas as to what days might have special religious or cultural significance is well taken and we concur. To effect a change, it was necessary to negotiate with the unions since observance of a "designated holiday" was covered in the labor agreements. Negotiations have now been completed, so that now all employees may designate as a "holiday" any workday having holiday significance to them as individuals.

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