

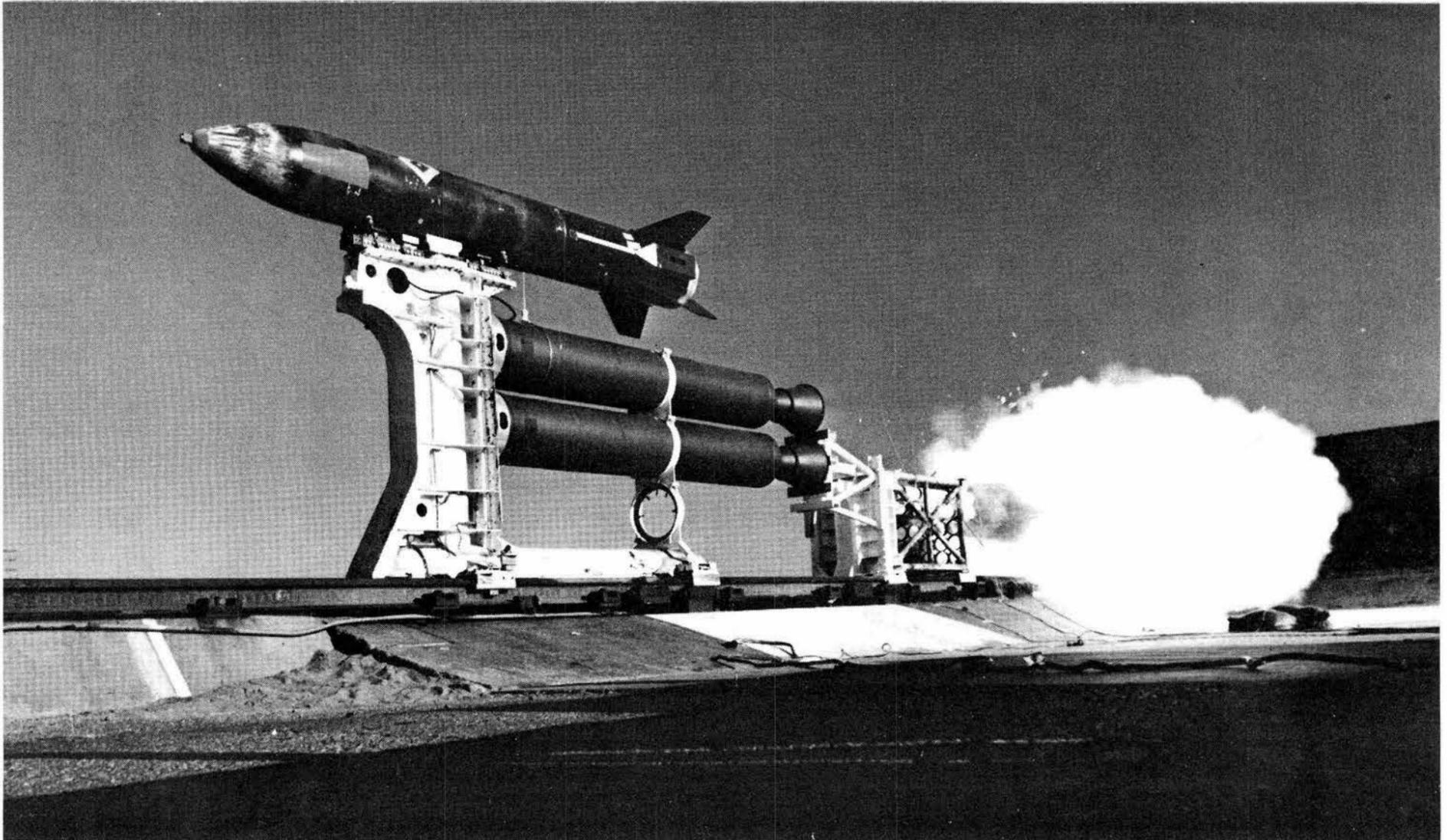


# LAB NEWS

VOL. 33, NO. 13

JUNE 26, 1981

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



AT IGNITION, first-stage Zuni rockets fire, followed by second-stage Nike rocket motors. In 4.2 seconds the sled accelerates to Mach 1.4, then a compressed air charge drives the test unit 250 ft. into the air for a B83

parachute deployment test. Tests are conducted on Sandia's 5000-ft. sled track in Area III by Division 1535.

## New Ejector Sled Tosses Test Unit 250 Ft. High at Mach 1.4

Tossing a 2400-lb. test unit 250 feet into the air at Mach 1.4 velocity is a new test operation now routinely performed on Sandia's 5000-foot sled track in Area III.

Project leader Bill Kampfe of Track and Cables Division 1535 reports that compressed air powers the ejector mechanism that tosses the test unit, while Zuni and Nike rockets in two stages provide the push to achieve Mach 1.4. This is 1100 mph, and is reached within 4.2 seconds after ignition some 3500 ft. down the track.

The tests are performed for Carl Peterson's Parachute Systems Division 5632 which is developing the nylon/Kevlar parachute for the B83 bomb. Don Johnson is project leader.

As the sled streaks down the track, cutter-knives on the sled's rail grippers pierce "screen boxes" at about the 1500-ft. mark on the track. This cutting action picks up the voltage necessary to fire a pyrotechnic device that releases a valve in the compressed air chamber in the sled. The high pressure air then activates a piston that flings the test unit into a 250-ft.-high trajectory. The parachute deploys while high speed motion picture cameras (supplied by Photometrics and

Optical Development Division 1556) record the event.

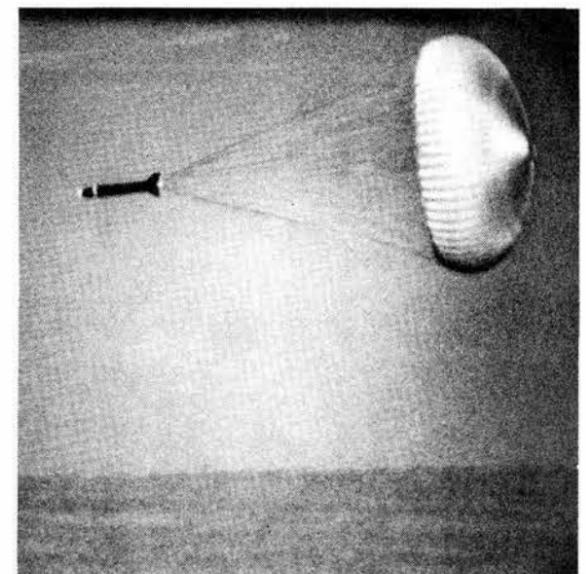
"It was the requirement for precision data gathering which promoted the development of the ejector sled," Bill Kampfe says. "We control the release, the trajectory and the velocity of the test unit."

"Rocket sleds have long been used to test parachute deployment, but we've never before had the requirement for 250-ft. altitude combined with high velocity."

While the parachute is deploying, a scoop in the front of the sled enters a trough of water between the rails of the track. This "water brake" absorbs 100,000 lbs. of braking load to halt the sled within 1500 ft. at the end of the track. The sled is retrieved to be used again.

The lower section of the sled, parallel to the track, is both a reservoir for compressed air (1800 psi) and an integral structural portion of the sled. The six-ft.-high center column houses the piston and forms the sled's rocket motor mounts. The test unit is held on top of the sled by pneumatic latches until explosive valve release occurs.

In a series of upcoming tests, the test unit with its parachute pack will be



B83 PARACHUTE deploys after release from new ejector rocket sled. The chute slows the 2400-lb. weapon and eases the impact of laydown delivery.

enclosed in a shroud and environmentally pre-conditioned while mounted on the sled before the run. The units will be subjected to temperatures ranging from -65°F to 160°F. Several of the tests call for high humidity, including icy conditions within the parachute pack.

# Afterthoughts

Battered language--Readers have sent us some specimens. From Focus, "The results were positive... on-base crime dropped 'drastically,' officials said." Drastic generally denotes and connotes bad news, e.g. "Stocks fell drastically on Wall St." How about "... on-base crime dropped dramatically"? From the Silver City Daily Press, a headline, "Special Talks Given To 4-Hers." This writer is steadfast and, in the article, talks about "a group of 4-Hers." Maybe he's got a thing about apostrophes. Lastly, from the APD, an extract from the Albuquerque criminal code: "Youth (sic) under the age of 15 ... cannot be in a public or semi-public place between 11 p.m. and 5 a.m....". Is a semi-public place sort of like a semi-private place?

\* \* \*

Western duds and Gresham's law--OK, you know about Murphy's law, but how many can describe Gresham's? In fact, it has much longer standing and was promulgated by Sir Thomas Gresham of England in 1558; it may be summarized as stating that bad money drives out the good, alluding to governments that try to solve fiscal problems through the device of printing more currency. It's since been noted that the mechanism of Gresham's law goes beyond fiscal matters and applies widely in human affairs, which brings us to the matter of all those western duds and the people wearing them. Somewhere out there on the range is the genuine article, the rawhide man in his jeans, boots and wide-brimmed hat who actually hustles cows for a living and/or performs in rodeos. Now if all those wimps from the city are going to dress as he does, then how is he to stand out from his imitators when they all show up at the Caravan East? Clearly, Gresham's law is operative here, and I submit that the time is not long in coming that you will indeed be able to distinguish the real from the bogus cowboy: the real one is the guy at the bar, squirming a bit in his new three-piece suit. Unless it's summer--then he'll be in Bermuda shorts and knee-length socks.

\* \* \*

Reaction--The T-shirt worn by a military man in the Base gym carried these words, superimposed on a map of Vietnam:

Participant  
SE Asia War Games  
1961-1975  
2nd Place

\*js

## Fourth of July

# Events Calendar

Albuquerque: Fireworks, sponsored by American Legion, 8 p.m., Stadium, UNM.

Carlsbad: Fireworks and musical entertainment, Lake Carlsbad Recreation Area.

Eunice: Celebration--fireworks, roping, turtle races, bands, horseshoe competition, water polo, barbecue, City Park.

Gallup: Old fashioned Fourth of July celebration--all day, Red Rock State Park.

Grants: Fourth of July rodeo parade, 10 a.m., Sante Fe Ave.

Moriarty: All-day celebration, Moriarty Park and Civic Center.

Mountainair: 7th Annual Jubilee, parade, 10 a.m.; barbecue, noon; dance, evening; downtown and City Park.

Nambe Pueblo: Waterfall ceremonial, various dances.

Santa Fe: Celebration, pancake breakfast, parade, fireworks; downtown.

Santa Rosa: Celebration--barbecue, fireworks, begins at noon, Park Lake.

Silver City: Frontier Days celebration--parade, rodeo, contests, fireworks, all day & evening, downtown.

Window Rock, Ariz.: Navajo Nation Fourth of July celebration--Indian rodeo, powwow, carnival, Indian arts & crafts, fireworks.

Deming: Annual Butterfield Trail days--parade, dances, barbecues, all day, Courthouse Park.

Mescalero: Ceremonial and rodeo, Mountain Spirit dance.

Red River: City-wide celebration--parade, tennis tournament, square dance, quick-draw contest, tug-o-war.

Tome: Fiesta--food, music, entertainment, 12 noon-5 at the Plaza.

## Congratulations

To Annette and Tom Woolston (1545), a son, Craig Ammon, May 25.

To Joanne and Dave McCloskey (4410), a daughter, Laurel, June 11.

To Cynthia and Charles Jenkins (5111), a daughter, Jaime Lynn, April 24.

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**HASTA LA VISTA**--As he prepared to undertake his new job in Washington as Asst. Secretary for Defense Programs, ALO Manager Herm Roser addressed a press conference and described what the job entails. Major responsibilities include management of the nuclear weapons programs, nuclear safeguards and security programs, and coordination of international activities relating to nuclear technology and materials. Highly thought of at Sandia Labs, Mr. Roser took the occasion to reaffirm his New Mexico "citizenship" and his intent to return here ultimately.

# Nuclear Tester Bob Burton To Retire



## SANDIA LIVERMORE NEWS

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After witnessing more nuclear tests and arming more bombs than probably anyone else at Sandia over the past 20 years, Bob Burton is retiring as supervisor of 1132-1.

A quiet, modest man, Bob was once part of a heroic team that climbed a 500-foot tower in the Nevada desert to defuse an armed nuclear device that had misfired.

Even though he doesn't make much of all he has done in the arming and firing of nuclear test devices for three decades, Bob does keep a scrapbook jammed with mementos of far-off Pacific island and Nevada Test Site tests. His book contains numerous certificates of appreciation and letters of commendation from military and AEC officials, including a personal letter from AEC chairman Lewis Strauss thanking him for his heroic role in disarming "Diablo" in 1957.

His weapons work over the years required that he spend months at a time away from his family setting up and firing test devices on the Pacific atolls, aboard ships or in the desert. These isolated pieces of geography offered little more than high temperatures, sometimes higher humidity, erosion by sand, corrosion by salt spray and bites by critters not friendly to man.

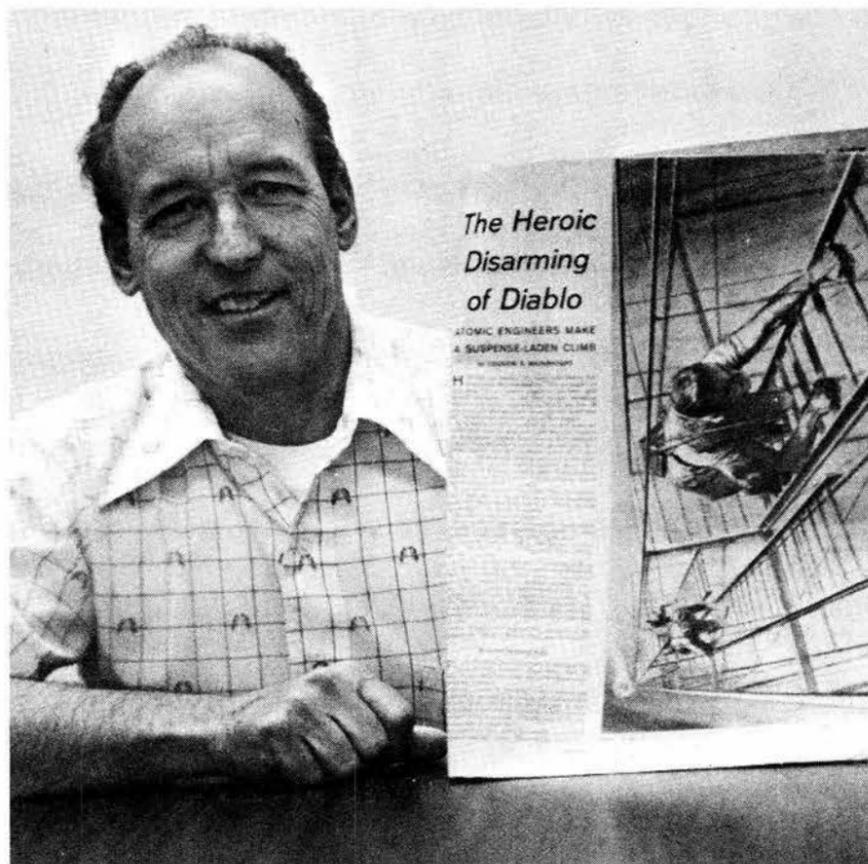
In 1966 Bob transferred to Livermore where he has since worked "off-site" with a group of three or four other Sandians at LLNL. His job is unique in that he is assigned to an Albuquerque organization, works in Livermore, but not at SNLL.

Asked about his part in the disarming of the Diablo nuclear warhead 24 years ago, Bob produced an old *Life* magazine that had most of six pages devoted to what the headline called the "Heroic Disarming of Diablo—Atomic Engineers Make a Suspense-Laden Climb." He and two men from Lawrence Livermore Lab—Forrest Fairbrother and Barney Rubin—climbed up a 500-foot steel tower by an outside ladder after the bomb—with an explosive force of 10,000 tons of TNT—had failed to detonate after an electrical snafu.

The actual nerve-racking climb took only 35 minutes, but the ticklish and suspenseful disconnecting of the device, which was accomplished quickly, must have passed in what seemed like an eternity. After word got out about the brave deed, newspapers all over the country headlined it. *Life* magazine interviewed the men, featuring them in the September 1957 issue, and more praise poured in from around the nation.

The 15-year valley resident was involved in many other memorable tests—Operation Wigwam in the Pacific during 1955, Operation Teapot at NTS, Operation Redwing at Eniwetok and Bikini in the Pacific Proving Grounds, Operation Plumbbob in 1957 which was the first launch of a nuclear air-to-air defense rocket, the first underground test ("Rainier") in the desert, and Operation Hardtack in 1958.

In 1960 he took part in the peaceful nuclear program—Plowshare—where he



BOB BURTON (1132-1) holds *Life* magazine telling of his heroism.

supervised the firing of "Scooter," 500 tons of non-nuclear chemical high explosives.

While the basic operation of arming and firing is largely unchanged, Bob sees a big difference in the testing program as a whole. "We know how to contain the event underground now so that we don't have to contend with the contaminated area and atmosphere afterwards. Of course, the shots are much less spectacular than they were in the early days," he adds.

Looking ahead, Bob has some guarded predictions on how the testing business will proceed. "It's gotten a lot more expensive, but with our new techniques we collect a lot more information from each test. We've

let our testing capabilities diminish, but I think we'll see a few more tests under the new administration and we'll get more information from them."

When he retires, Bob's first priority is to finish a house begun four years ago near Fort Bragg in California. He and his wife have done most of the work on it weekends and during vacation periods and hope to complete it by the end of summer. "Also, I haven't done much fishing with all the house building—I want to get back to that," he says. And they plan to do some travelling around the country and enjoy visits with their two married daughters and grandchildren who reside in California.



AN OLYMPIC swimming pool it is not. The excavation to remove more than 10,000 cubic yards of dirt is the start of a \$2.8 million expansion of the underground Computing Center, adding 10,800 square feet to the south of the existing facility. The excavation, 24 feet deep, will become a completed building by April of 1982, according to Gary Drummond (8336), Computer Operations Division head. In the second phase, the existing print room, I/O and keypunch areas will be renovated by July 1982. Bob May (8254) is the plant engineer in charge of the project.

## Nancy Hall to Head Civitan Group

Nancy Hall looks like a teenager—small, blonde, green eyes, baby face.

Don't let appearances fool you. This is one serious and dedicated woman, a chemist in Exploratory Batteries Division 2523, totally professional. She's a wife, the mother of a three-year-old son, and the president-elect of the Albuquerque Breakfast Civitan Club, a large and active community service group.

With a membership of about 40, half from Sandia, the club meets Tuesdays at 6:30 a.m. to have breakfast, to hear a speaker, to conduct business, to have fun.

"The community service projects run on weekends or after work," Nancy says. "Our group has completed a playground for the physically handicapped at Mark Twain Elementary School, and we're now remodeling a Navajo Elementary School building into a new learning center. We worked for a long time redesigning and remodeling the YWCA Blue Triangle Camp in the Jemez Mountains to accommodate physically handicapped children. This was a great project, and it turned out well. In addition to widening hallways and rebuilding bathrooms, we built a large deck and access ramp around the main structure. It's beautiful, and it serves as the social and leisure center for the Camp."

Funds for the Club's projects are raised with two annual projects—renting out baby strollers at the State Fair and gift wrapping packages at a booth in Coronado Center during the Christmas shopping rush.

"We raise about \$8000 annually," Nancy says, "and try to make it go as far as we can toward helpful and continuing service. The money goes for materials, the membership provides the labor."

Nancy has been a Civitan member since 1977, serving last year as secretary.

In addition, she's secretary in the Society for Advancement of Material and Process Engineering (SAMPE) and will be program chairwoman next year. Also, Nancy is active in the New Mexico Chapter of Women in Science and Engineering and took part in its recent Expanding Horizons workshop for high school girls.

Social concerns became a part of Nancy's life while she was attending high school in San Antonio, Texas. Active in her church youth group, she was a continuing volunteer in charity drives and worked in an aluminum can recycling center.

High school is also where Nancy became a chemist, moving early into advanced classes. She graduated with her BS degree from southwest Texas State University in three years, first in her class.



NANCY HALL (2523) delivers her three-year-old son James to the babysitter every workday morning at 7:30. Nancy's life is a balancing act—family, career, community service.

She worked for a year as a graduate assistant at UNM while husband Jim (whom she married in June 1974) finished his degree and took a job with APS during the 18 months Nancy worked with the Lovelace Inhalation and Toxicology Lab, located south of Area III. She joined Sandia in November 1976.

The next important milestone date was Aug. 11, 1978, when her son James was born.

"Now *that* was a time," she says smiling. "A top-of-the-world exhilaration. I thought it would last forever."

Back on the job after a leave of absence, Nancy felt her work was going well. Jim became a certified educational diagnostician with APS in August 1980. Son James was a happy, growing infant. But, slowly, over the next year, things fell apart. Nancy and Jim separated.

"We've worked hard in counselling sessions to find out what went wrong," Nancy says. "We cared enough to try again after four months of separation. The truth is that balancing family and job and outside interests isn't easy. It's rough—a lot harder than I expected."

"There's the endless details of baby care, shopping, cleaning, laundry, meal preparation. And we need time to grow—Jim takes classes and I take Sandia courses occasionally. We've had to set priorities and reorganize. We still see a counselor."

Nancy pauses. She thinks a moment.

"These are new times and there are no role models. I was one of six children. Dad was the boss. Mom took care of the kids and house—believe me, it was a full-time job. Nowadays, for most young couples, both husband and wife work. It's not like Ozzie and Harriet."

Nancy pauses again.

"I jog a half-hour after work," she says. "That clears my mind of everything. Then driving to pick up young James from the babysitter on the way home, I plan the evening. I also keep a pocket calendar with everything written down. There *is* enough time. So far, at least, there's enough energy."

## feed back

*Q. There is a tendency at SNLA to send laboratory equipment, glassware, etc., to storage because no need exists for it in the foreseeable future, yet it is too good to send to reclamation. Thousands of dollars worth of equipment goes that way. Is there someone who coordinates the redistribution of these items within Sandia [or other DOE labs]?*

A. Considerable effort is spent to assure effective use of property in storage. Quarterly storage reviews are conducted and escalating approval levels are used to control requests for long-term storage. Periodic walk-throughs are performed by property and line organization directors to identify items for disposal or for reapplication.

The major effort for redistribution of excess equipment results from our reclamation procedures. Excess equipment delivered to Reclamation is extensively screened to identify usable items for possible reapplication within Sandia. Reclamation operations include procedures to publish and circularize lists of available excess equipment throughout all DOE and other federal agencies, and this equipment is transferred to these agencies on request. After this process is completed, the remaining items are available for donation to state and local government agencies (including educational institutions) and then may be sold to the public via sealed bid or our salvage sales yard. During FY80, excess equipment valued at approximately \$10.5 million was reapplied as follows: (1) Sandia, \$2.3 million; (2) DOE, \$1.8 million; (3) other federal agencies, \$1.8 million; (4) donations, \$0.7 million; (5) sold to the public, \$2.0 million; and (6) scrapped as having no value, \$1.9 million. Our reclamation procedures assure that excess equipment is utilized to the fullest extent, and storage should be avoided unless there is some foreseeable requirement.

D. S. Tarbox—3400

### Retiree Pension Increase

Last issue, in an article about increases in retirees' pensions, LAB NEWS goofed. A number of errors appeared in a table of examples of how the increases are computed. Here it is corrected:

*Retirement Income Plan:* An employee retired February 1, 1980, with a pension of \$500 per month;

1. 14 (months of retirement during the period December 1, 1979, through March 31, 1981)  
 $X 0.5625\% = 7.875\%$
2.  $\$500$  (monthly pension)  $X 7.875\% = \$39.37$
3.  $\$500.00 + \$39.37 = \$539.37$  (monthly pension effective April 1, 1981)

*Pension Security Plan:* An employee retired January 1, 1980, with a pension of \$500 per month;

1. 18 (months of retirement during the period December 1, 1979, through June 30, 1981)  
 $X 0.4737\% = 8.527\%$
2.  $\$500$  (monthly pension)  $X 8.527\% = \$42.63$
3.  $\$500.00 + \$42.63 = \$542.63$  (monthly pension effective July 1, 1981)

# Supervisory Appointments

PAUL HOMMERT to supervisor of In Situ Technologies Division 4747, effective June 1.

Joining Sandia in 1976, Paul worked for two years with the underground coal gasification project. For the past three years he has worked with the in situ oil shale project in the division which he now heads.

Paul earned a BS in ME from Rensselaer Polytechnic Institute and his MS and PhD, also in ME, from Purdue. His primary interest off the job is soccer—he serves as a referee and also coaches a women's team. He and his wife Elizabeth have two children and live in NE Albuquerque.

\* \* \*

ETTA MOORE to supervisor of Security Operations Division I 3434, effective June 1.

After joining the Labs as a division secretary in 1968, Etta became a department secretary with the test equipment and quality assurance organizations and later worked as a management aide in document control in the security organization. She was promoted to supervisor of Visitor Access and Administration Section 3433-1 in 1976.

Etta is a Certified Professional Secretary and has a BS in business administration from the U of A and an MBA from New Mexico Highlands.

\* \* \*

DON SCHUELER to manager of Solar Energy Projects Department II 4720, effective April 16.

Don joined the Labs in 1963 to work as a staff member with a microelectronics group. For several years he worked in the RTG (radioisotopic thermoelectric generator) program and, in 1971, was promoted to supervisor of a solid state electronics division. From 1976 until the present, Don headed a solar projects division responsible for photovoltaic development. In his new position, his responsibilities include both photovoltaic and solar thermal programs.



PAUL HOMMERT (4747), ETTA MOORE (3434), SAM TABET (3618-2) and DON SCHUELER (4720).

Don received a BS, MS and his PhD, all in EE, from the University of Nebraska. He is a member of IEEE and the International Solar Energy Society. His leisure time activities include woodworking, skiing and camping. Don and his wife Becky have four children and live in the NE heights.

\* \* \*

SAM TABET to supervisor of Structural and Special Fabrication Section 3618-2, effective June 1.

Since joining the Labs in February 1950, Sam has been with the maintenance organization, working as a driver, a welder and a millwright. Since 1978 he's been a standards analyst in Maintenance Operations Planning Division 3615.

Sam served in the U.S. Army from 1945-47 and, before that time, he worked with the Maritime Commission on Terminal Island near Long Beach. He and his wife Louise have three children and two grandchildren. They live in northwest Albuquerque.

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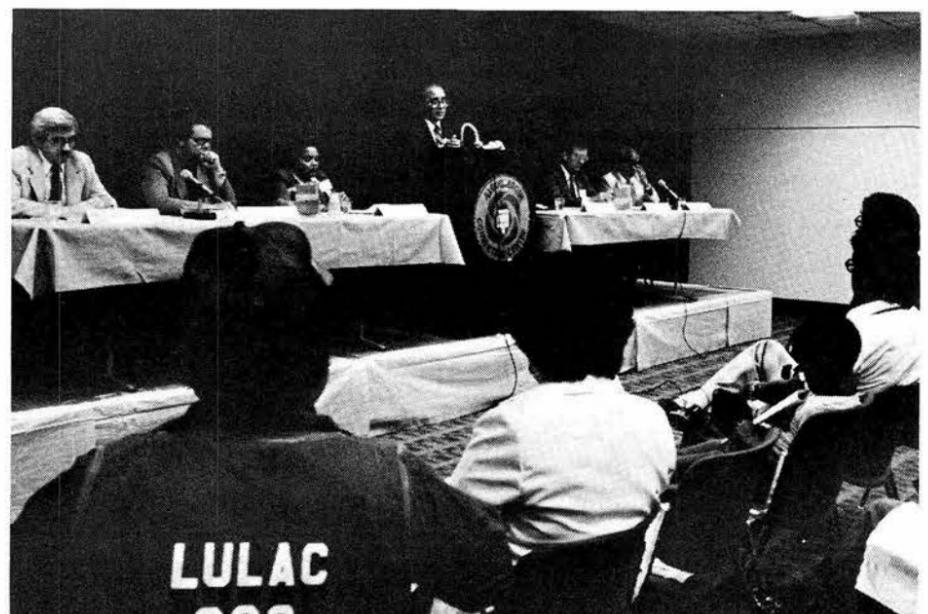
FRANK GALLEGOS to supervisor of Personnel and General Employment Division 3533, effective June 16.

Frank joined Sandia in 1974 and held various positions in the benefits and position evaluation organizations. He joined the recruiting division in 1975, moved to the 4000 group as an administrative assistant and, since January 1980, has been with the Equal Employment Opportunity and Affirmative Action Department 3510.

Frank received a BBA degree in accounting from UNM and his MBA from the University of Utah. He is a member of the board of directors for United Way, serving on the allocation and planning committee; the Old Town Optimist Club; and the Coronado Club board of directors. Off the job, Frank enjoys swimming and golf and coaching youth athletic teams. He and his wife Helen (1751) have three children and live in the NE heights.



LULAC, the League of United Latin American Citizens, met in Albuquerque for its 52nd annual convention in mid-June at the Convention Center. Over one hundred companies participated in setting up exhibits, including Sandia



and other companies from the Bell System. Many Sandians took part in the convention as well. Bob Garcia (3500) is shown here as he moderated a panel on President Reagan's proposed changes on affirmative action.

## Speaker Describes Space Shuttle

Bob Thompson, manager of the Space Shuttle program, was featured speaker in a recent colloquium and he reviewed the project's development and future. A film was shown which included exceptional views of the launch, orbit, and landing, photographed by Columbia pilots John Young and Bob Crippen.

Thompson had a special message for Sandians: The people at laboratories such as ours should take up the challenge to devise good uses for the shuttle.

The Space Shuttle was conceived 11 years ago, and its engineering development was completed by the mid-1970s. The program objective was to provide a national resource for routine space flights. Before, each space vehicle was specially designed for a particular mission. "We didn't have the smarts to build a reusable spacecraft in the '50s," said Thompson. In the 1960s, the space program concentrated on weather and communication satellites

and, of course, the Apollo moon program.

"The lunar project really stretched our technology," said Thompson, "and Skylab, in manned orbit for three months, also provided us with valuable experience . . . But there was a need for a more economical, reusable vehicle with broader applications . . . one that would fulfill military and civilian needs as well as NASA's."

The Space Shuttle has a broad range of capabilities: it has a reusable booster and orbiter and a large cargo bay—a Greyhound bus would occupy only two-thirds of the cargo area. The payload amounts to one percent of the liftoff weight, or 65,000 pounds.

The Space Shuttle is planned for use over the next 20 years. Among its many potential uses:

- It will take laboratory-type experiments into orbit and return them to earth.
- Satellites will be repaired in orbit or

brought back; they also will be placed in orbit.

—A space telescope will be placed in orbit by the mid-1980s.

—Large orbiting structures will be constructed in space by astronauts in space-suits with maneuvering backpacks.

—The next major development is a Space Operations Center—a space station with docking facilities for shuttles and inter-orbit spacecraft.

Thompson said that three more test flights are scheduled for the shuttle: one in late September or early October and two more in 1982. NASA's objective is to launch and recover orbiters at the same site—construction is underway of launch facilities at Vandenberg; these are scheduled to be operational in 1984. Three more Space Shuttles are under construction. The first is to be delivered in July 1982 and the next two in September 1983 and December 1984.

## Take Note

The Base Library is again sponsoring activities for children of parents on KAFB. On Wednesday, July 1, the kids will be drawing murals on the meaning of the 4th of July and, on the following Wednesday they'll have a seed session, planting and growing. The Library is located just across the street from the military service station, between F and Gibson.

\* \* \*

A public meeting on air quality standards has been set by the Mid Rio Grande Council of Governments for Wednesday, July 1, at 7 p.m. The locale is City Hall, the City Council room, at 5th and Marquette. The discussion will focus on the 1982 air quality plan.

\* \* \*

Two women at the Credit Union are serving as officers in Beta Sigma Phi, an international organization for women that sponsors a program of community service. Pam Yoshimura, CU's associate manager, is beginning her term as local chapter president and Kim Thompson is serving as recording secretary. Beverly Perkins, also employed in the Credit Union, was recently initiated into the organization.

\* \* \*

Two musical and one dramatic events are scheduled for the coming weekend. The Chamber Orchestra of Albuquerque opens its summer season on Saturday, June 27, in UNM's Keller Hall at 8:15 with selections from Warlock, Bach, Mozart, Hindemith and Telemann. At Popejoy, meanwhile, you can see the Albuquerque Civic Light Opera's rendering of *Showboat*, June 26, 27 and 28 (2:15 matinee only).

In the drama department, the Adobe Theater's *A Hatful of Rain* opens this weekend, continuing through the next two. Retiree Bill Carstens, who is president of



JUST EAST of the Particle Beam Fusion Accelerator (PBFA I) in Area IV, the excavation for PBFA II is underway. First phase of construction—the building of the shell of a light lab and high bay structure—is scheduled for completion by spring '82.

the Adobe Theater, called to describe the play, by Michael Gazzo, as ". . . a serious drama dealing with the drug scene." It runs Thursdays to Sundays, curtain is 8:30, and make reservations on 898-3323 after 2 p.m. Wednesdays through Sundays.

\* \* \*

Volunteers are needed by the Albuquerque Animal Humane Association at its animal care and adoption center at 615 Virginia SE. For a schedule and other information, call Thelma Evans, 255-5523.

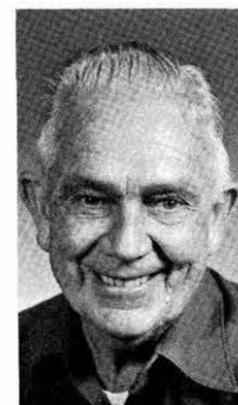
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The Albuquerque Children's Theater will present "an imaginative, new look at an old favorite," *The Travels of Gulliver*, in four performances at Popejoy, Wednesday and Thursday, July 1 and 2, at 10 a.m. and 2 p.m. each day. Advance tickets are \$2 and may be purchased at Popejoy; their phone is 277-3121.

\* \* \*

Valley High School grads from the class of '56 are holding their 25th reunion on July 3 and 4 at the Holiday Inn. Contacts are Charlotte (Robbins) Johnson, 298-4553, or June (Lewis) Zietlow, 344-1372.

## Death



William Smith of Remote Areas Maintenance and Test Support Division 3618 died June 18 after a long illness. He was 60.

He had worked at the Labs since March 1962.

Survivors include his widow, a daughter and step-daughter Lillian Pickens (2631).

## Fun & Games

*Vacation rentals*—Our Vacation Rental Directory is perking along nicely with some 15 entries. Most fall in the cabin/condo category, and their locations offer variety: Vail, Ruidoso, Vallecito Lake, La Cueva, Maui, Angel Fire, Fenton Lake, Purgatory, Taos, Sea Ranch (north of San Fran.), Conchas Dam, and Tahoe. And we have one mini-motor home—a Toyota Chinook operating out of Walnut Creek, Calif. We're surprised not to have more of the last-named; a lot of these arks-on-wheels are sitting in driveways gathering dust. Renting one out would be a good way for the owner to come up with a payment or two. The Directory, incidentally, is not restricted to Lab employees, only to private individuals and their vacation properties. If you've got a Manhattan townhouse that's available, then send LAB NEWS the details and we'll include it. We've also had a call or two for houseboats—any out there?

\* \* \*

*Fireworks*—On July 3, the Old Town Optimist Club presents its annual fireworks display at the State Fairgrounds. Sandia members of the club are Lanny Garcia (3535), Dorothy Garcia (3531), Andy Jajola (1481), and Frank Gallegos (3533). Tickets—\$2.50 for adults and \$1.50 for children 14 and under—are available from any of the above members.

\* \* \*

*Triathlon*—This event, a mix of running, biking and swimming, has come into its own in the past few years, and triathlons in various formats are now being staged at a number of locations in the country, including Albuquerque. One of the more rigorous was held earlier this month in Estes Park, Colorado, and Sandian Jim Harrison (4311) took a creditable sixth place in the field of 75. In this event, "rigorous" means 27 miles of running, followed by 52 miles of biking, followed by a two-mile swim, all back-to-back without pause. Jim completed the three phases in eight hours, eleven minutes. Jim reports that just to make things interesting, a snow storm was on hand during the running and biking phases.

\* \* \*

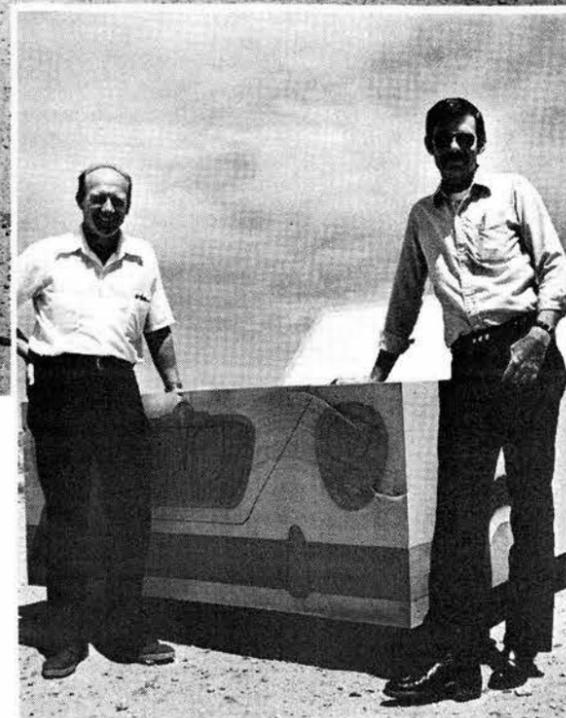
*Golf*—Jim Leonard (4717) and Leon Chapman (4416) tied for low gross honors in the recent Sandia Golf Association Open, a two-day tournament played June 6-7 at Arroyo del Oso and Ladera Golf Courses. Both men scored an aggregate of 147 for the two days. Jim Schwank (2117) won the low net trophy with a total of 126 (18 under par). Senior flight honors went to Ed Stang (1732) with 133 net total. Twenty other golfers out of the total field of 62 won individual day and flight prizes in the form of gift certificates and golf balls. Paul House (3155) and Ed Stang were tournament co-chairmen.

\* \* \*

*Running*—The Duke City Dashers are sponsoring a Master's All-Comers track



HARVEY MORSE (1714) and Phil Burnworth (DOE Transportation Safeguards Division) aren't showing off the latest thing in low riders. They're in front of the polyurethane car that Harvey designed for use in courier training. In the picture above, Phil is about to clobber the dummy car to demonstrate how to get by a terrorist's blocking car.



## Project Fender: Bashing Into Autos

The DOE courier vehicle is traveling down a lonely stretch of highway. Suddenly, another car blocks its path. The DOE driver slows, then floors the accelerator and deliberately smashes into the other car's rear fender. The blocking car bounces off the road . . .

Bounces?

That's right. You see, the "terrorist" car is made of foam rubber . . .

Foam rubber?

Let Marty Strones of DOE's Transportation Safeguards Division explain it: "As part of our courier driving training, we want to teach our couriers how to counter a terrorist ambush. Mainly, the driver learns how to hit the other car to push it out of the way. Considering the reluctance of most people to deliberately hit another vehicle, some practice is in order. We originally thought of using old clunkers, and I asked Sandia's Harvey Morse to help us beef up our vehicles. He thought that for the initial training, at least, he could

design a dummy vehicle that could be reused many times and wouldn't require us to modify our vehicles."

Harvey Morse (Transportation Division 1714) tells us the dummy vehicle is made of large blocks of flexible polyurethane foam bonded together, then bonded to a reinforced plywood base mounted on large castors. "The idea was to keep it light, easy to move in any direction, and to have it bounce back to its original shape," he says. "DOE feels that after the couriers have practiced with the dummy vehicle they will be adequately trained to handle the real situation."

Although "fender benders" aren't a problem with Harvey's foam car, "fender tearers" are. They day we were there, the courier vehicle tore the front fender during a demonstration. "But all it takes to fix it is to spray some adhesive into the tear and it's good as new," says Harvey.

It's too bad everyone doesn't drive foam rubber cars.

### Unusual Vacation?

Have you taken one lately? LAB NEWS is interested in your non-standard vacation—give us a call on 4-1053.

meet on Sunday, June 28, at the UNM stadium (University & Stadium), starting at 8 a.m. The events include runs of 5000, 400, 100 and 800 metres and a one-miler. Age classes are 30-39, 40-49, 50-59 and 60 and over. Register at the meet.

# Soccer, Sandians —A Love Match

Back in the Middle Ages, towns would challenge each other to a rousing game of kick-the-skull. Each team consisted of hundreds of villagers, and the winner was the first to make a "goal"—that is, kick the skull into the other village. (The sources are hazy as to whether the skull was of human or animal origin—in time the fun-loving burghers covered it with leather.)

The popularity of "football" spread throughout the continent. By the 17th century, it had become a "gentleman's" sport in England, played in all the top schools—Eaton, Cambridge, Oxford—but only intramurally, so the rules differed from one school to another.

Then the English looked upon the chaos of football rules and decided that here was fertile ground for their civilizing mission. They created the Football Association which codified rules that spread to continental Europe and then to the rest of the world. By the 1930s football had assumed its modern form.

In the United States we call it soccer to differentiate it from our own weekend-and-Monday-night pastime. We took the "soc" out of "association" as in Association Football—which stands for top-notch quality of play,—and added "er."

All right, you say, that's all very interesting, but what does it have to do with Sandia or Albuquerque? "Sandians make a big contribution to local soccer, and there are over 4000 players in Albuquerque organized in adult and youth leagues," answers Len Beavis (4724), who referees local games and holds refereeing classes around the state. "The local leagues are part of national soccer organizations. The U.S. Soccer Federation oversees both professional and youth and adult amateur play. There's also the American Youth Soccer Organization which has 300,000 members nationwide. The sport is growing at about 10% a year in Albuquerque and, in truth, we're running out of playing space. On Saturdays, there are 234 AYSO teams playing 117 games on 15 fields around the city. In addition, 40 adult games are played every Sunday during the seasons—September to October and March to May.

"My son got me interested in soccer six years ago. First game I watched, I thought the referee wasn't doing a good job so I decided to learn more. Since then I've been studying the rules, officiating at games, and occasionally traveling around New Mexico conducting refereeing workshops. But Sandian John Taylor has been a big influence on me—his role in local refereeing can't be overstressed. He's gone out of his way to see that people are properly trained.

"Soccer is good exercise. In a typical game, the referee runs about six miles—that's more than the players since the referee has to cover the entire field and the players don't. A regular adult game is two 45-minute halves played straight through. The youngest kids play half-hour games."



IN SPITE OF Dean Mitchell's (2353) valiant effort, the Misfits went down to defeat by a score of 3-2 in their season final against the Ramblers from Rio Rancho.

A partial roster of Sandians supporting or playing local soccer accentuates their important roles in the sport: Sam Bolin (1738) is Duke City Soccer League Commissioner; Ralph Trujillo (5811) is president of the Albuquerque Soccer League; Mike Stone (5521) is AYSO head coach; Fran Stohl (4200) and Karen Robinson (4511) are active in the Albuquerque Women's Soccer League; and John Taylor (1200) is president, Emil Bernard (1761) is VP, and Dick Bild (5821) is treasurer of the Albuquerque Soccer Referees Association.

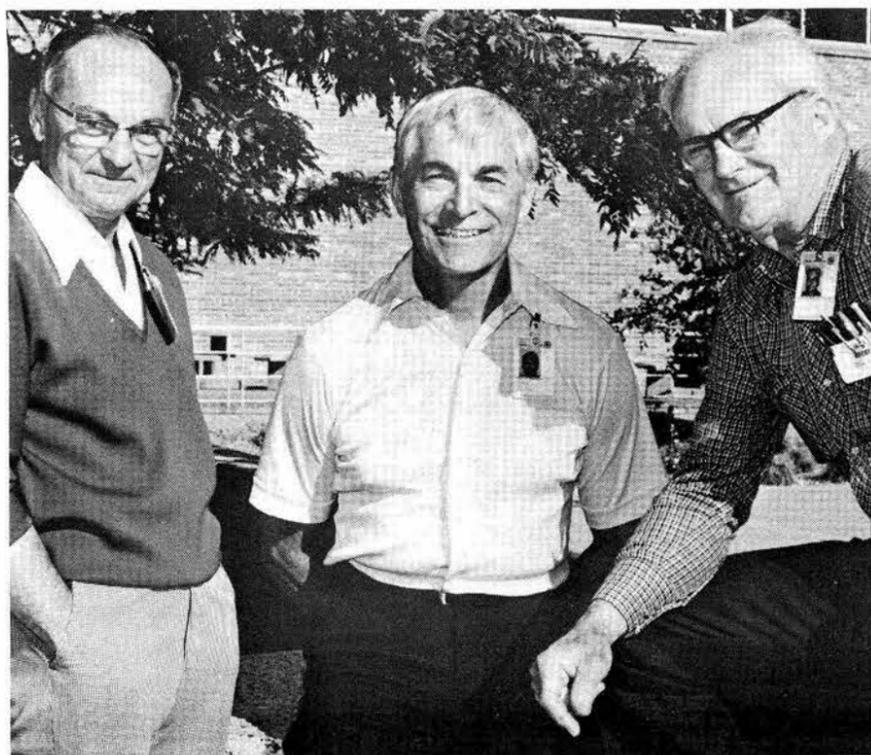
Sandia even has an unofficial team, the Misfits, which closed out the season on May 17 with two wins and ten losses. In spite of their disappointing record, team members

Joe Harris (2353), and captain Don Cowgill (2352) are mildly ecstatic over soccer. According to Joe, soccer "helps to develop foot-eye coordination while in most other games hand-eye coordination is more important." And Don offers the following: "It's a game of speed—the faster ones will win and size isn't important. Actually, shorter players generally do better than the big ones."

Referee Wally Newman (2351) adds: "It's a great sport—unlike football and baseball, everybody on the field participates. It's a game of stamina and the equipment is relatively inexpensive."

Football/soccer has certainly come a long way from its medieval skull-kicking days—all the way to Albuquerque.

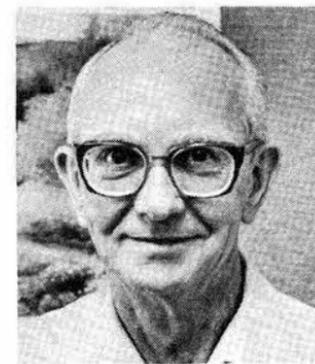
## Retiring



Bob Reed (1714), Paul Syroid (1414) and Tom Corpe (2325).



Helen McKenzie (3411)

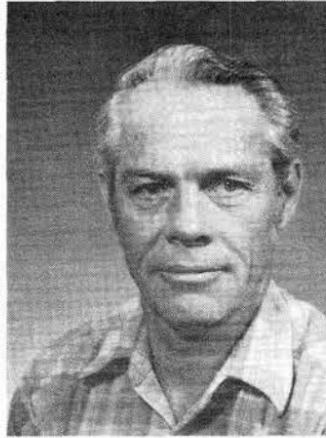


Dean Irvin (3541)

# MILEPOSTS

## LAB NEWS

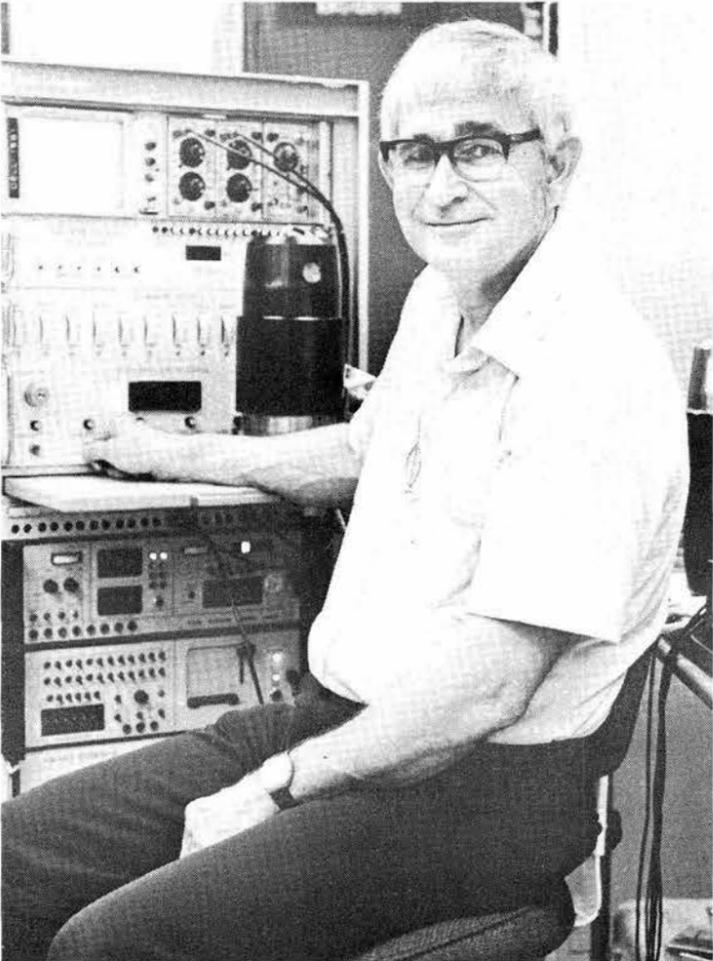
JUNE 1981



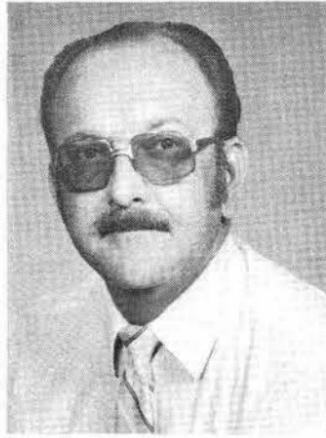
Gerald Long - 1111 25



Mae Lovelace - 1471 30



Bruce Ercole - 1582 25



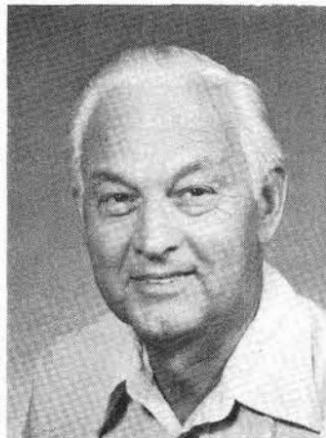
Sam Thompson - 4444 15



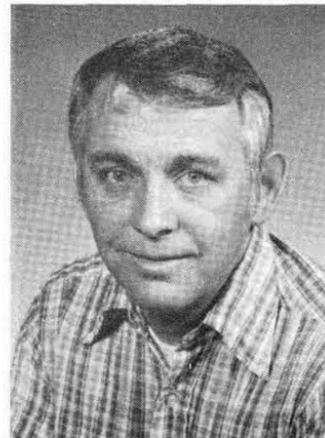
Al Hutters - 1587 25



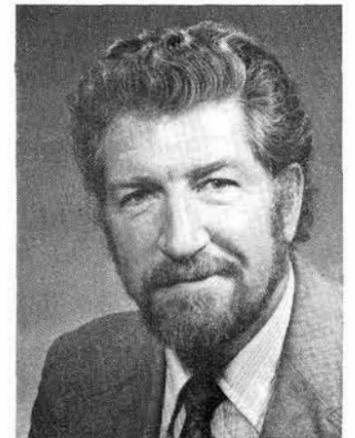
Jerry Foley - 5522 25



Dick Illing - 1421 20



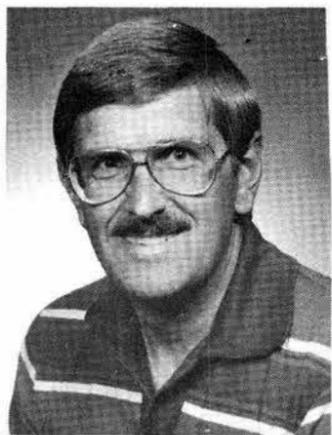
David Johnson - 4252 15



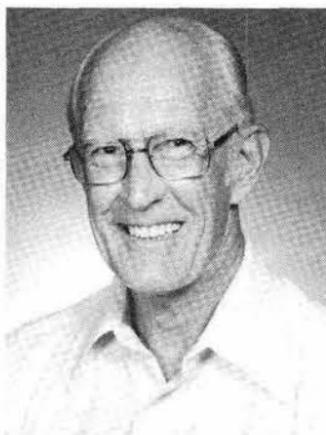
Gene Ives - 4330 25



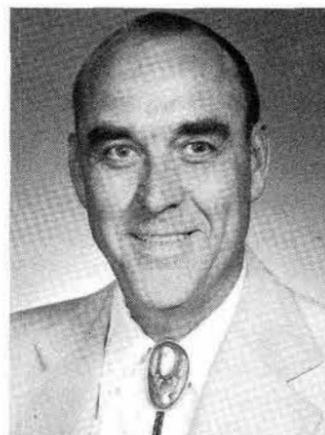
Ken Henry - 8444 20



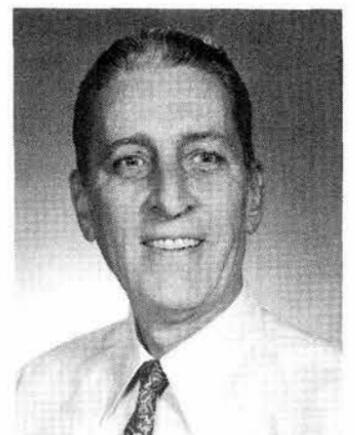
Ray Klein - 4212 20



Joseph Boyd - 1552 30



Bill Martin - 3740 30



Charles Selby - 4372 30



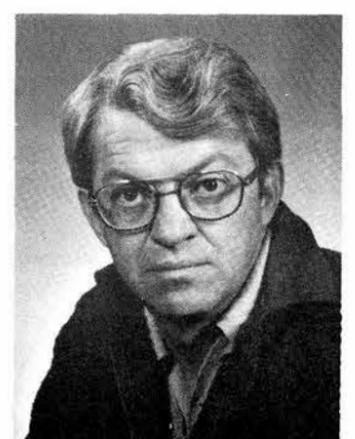
Bill Marshall - 4713 20



Harold Schildknecht - 2324 25



Dick Rael - 3741 30



Robert Hutcher - 3417 15



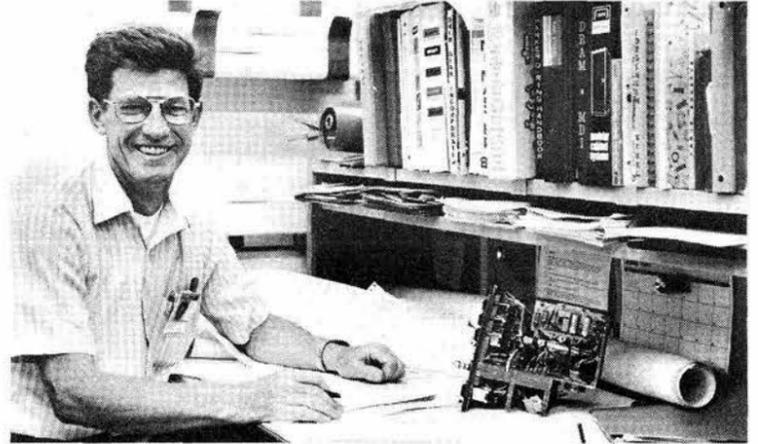
Harriett Skoog - 8461 15



Jack Canute - 1587 25



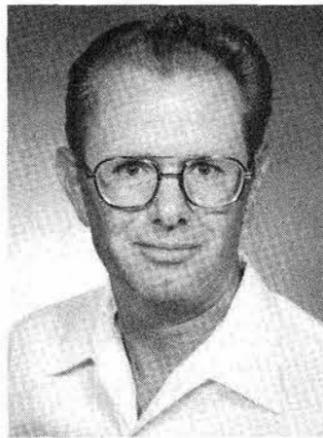
Milt Madsen - 1714 30



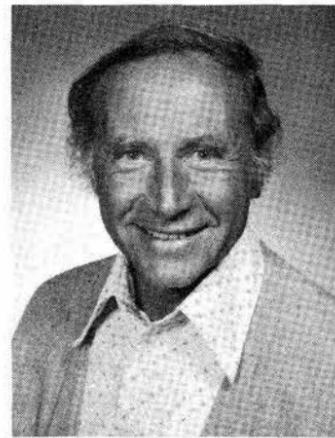
Charles Riney - 2451 20



Ken Swanson - 2327 20



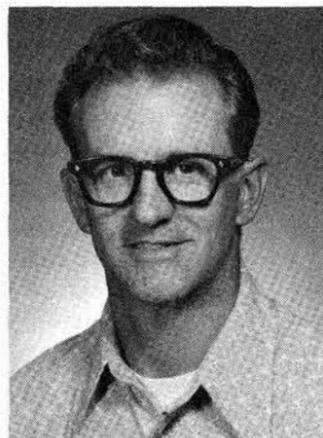
Dick Jorgensen - 4341 25



Pete Richards - 5151 10



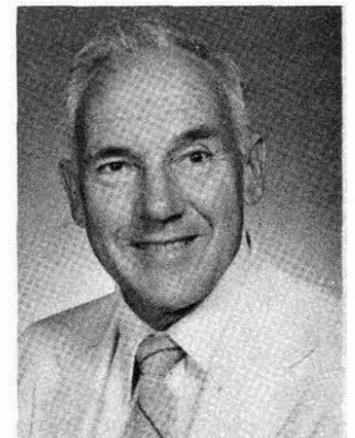
Dick Houser - 8451 20



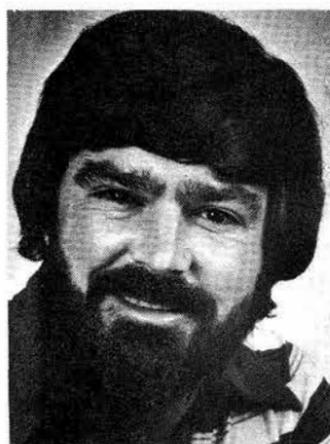
Dave Shank - 4372 20



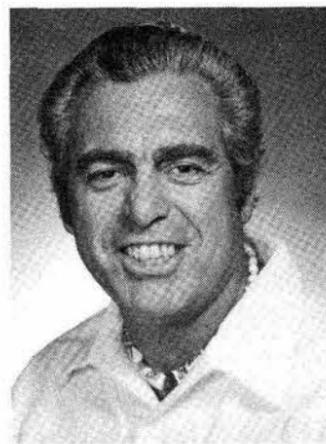
Keith Smith - 1752 25



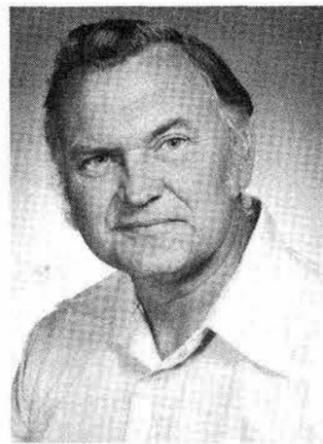
John McKiernan - 4542 30



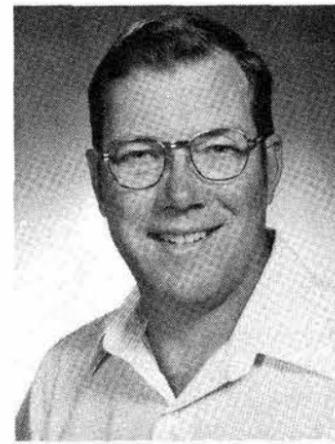
Pete Witze - 8352 15



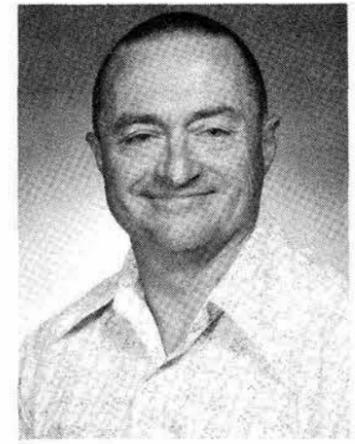
Harry Blechinger - 1137 25



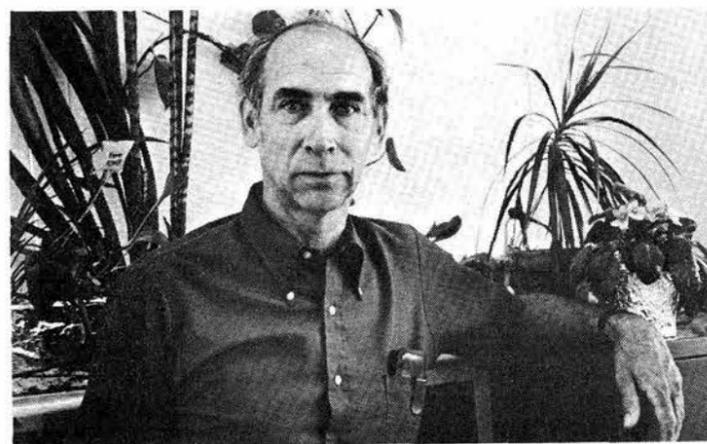
Clarence Robertson - 1556 20



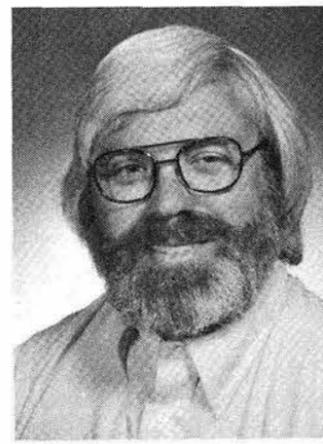
Richard Newell - 1426 15



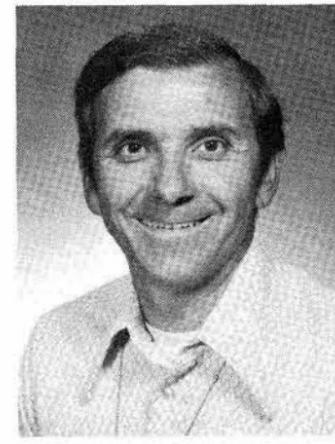
Warren Windle - 2531 20



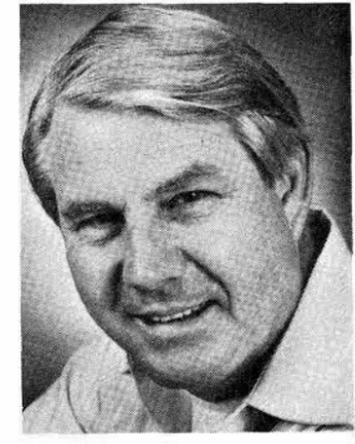
Charlie Blaine - 2336 25



Bob Eagan - 5845 10



Bob Balthaser - 1415 20



Jim Ackerman - 8161 15

# Favorite Old Photo

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



Dad was a young bachelor when he came to Albuquerque from San Antonio in 1927. This photo, taken in 1928, shows him at left with his partner at their shop on Gold SW, where Dad cleaned and blocked hats and the partner did the tailoring. I asked him once why he called the place the "Philadelphia Hatters." "No reason—just thought it sounded classy," he told me. In the years before WW II, it was unthinkable for a man to go out without a hat, and this was the basis for Dad's business. After the war, most veterans would have nothing to do with a hat, so Dad finally went into the real estate business. His name was Amos Ahr and he died in 1958. (Art Ahr—2613)

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Deadline: Friday noon prior to week of publication unless changed by holiday. Mail to: Div. 3162 (M0125).

### RULES

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

### MISCELLANEOUS

SANDIA LABS caps, T-shirts and windbreakers (\$5, \$6 & \$15). Bike maps of Albuquerque, \$1.50. Tech Area color aerials. And used books. S. Hwy. 14 Proj. LAB NEWS, next to Bldg. 814.

.22 CAL. RIFLE, semi-auto., M-16 replica, \$150 firm. Rosechke, 298-0365.

OLD solid oak bedroom set: 4-dr. wardrobe, head & foot boards, small chest of drawers & 2 night stands (attach to headboard), \$300. Chavez, 831-9591.

SWING SET w/frame, oak wood w/metal frame & chains, adult size. Moyer, 881-0754.

PIANO, Yamaha U1 Professional upright, \$2400; furniture: all good brands, high quality, end tables, upholstered chair, lamps, etc. Nuttall, 293-2250.

NAVAJO RUGS: 2 ea., circa 1929, both "sawtooth" pattern, 40x66", \$400; 49x78", \$450. Kindley, 296-7819.

SEARS 15" high velocity fan, \$25; Osterizer, 10-spd. blender, \$25. Beardsley, 292-5910.

OVEN, built-in, dbl. elec., Sears, copper-tone, fits 22 1/2" x 38 1/2" opening. \$200. Verardo, 255-6385.

PORTABLE typewriter, Olivetti Lettra #36, 1 yr. old, all elec., has everything. Arana, 299-1214.

SLIDING GLASS DOOR, 5'x6'8", double pane, \$170. Domme, 255-0133.

RANGE HOOD, 42", copper-tone, fan, light, \$12. Trump, 299-5162.

FLOTATION VESTS, Waterski type life vests, also good for rafting, sailing, etc., 1 X-large, 1 large, \$15 ea. Loescher, 299-9477.

HORSE, 10-yr.-old sorrel, gentle, good riding horse, \$500. Johnston, 865-4004.

53x38 CASEMENT WINDOW, \$20; 6' sliding glass door, \$65; 50' of 3' chain link fence, complete, \$50. Woellhart, 293-0626.

OUTDOOR drinking fountain; solid core door, 36x79"; plywood ping-pong table; folding painting easel;

basketball backboard & pole, make offers. Tolman, 296-8239.

S&W model 27, 8-3/8", 3T, .357 magnum w/presentation case, \$350; Titleist Achushnet golf clubs, complete set w/bag, \$250. Ma, 883-4438.

GOLF CLUBS, PGA Classic, 1, 3, 4, 5 woods, 3 - p.w. irons, \$70. Duvall, 881-4406 after 5.

THREE ADJOINING LOTS in Sandia Memory Gardens, all for \$500 or best reasonable offer. Hodgden, Box 256, Lovelady TX, 75851, 1-713-636-7545.

19" PORT. COLOR TV; fp screen; humidifier; floor lamps; starter set of golf clubs. Rudolfo, 821-3460.

WATCH BAND, men's turquoise & silver, has flex band, \$75. Hughes, 299-6674.

REEL-TO-REEL (AIWA) stereo w/built-in amp/speakers, \$50; new JVC stereo receiver/amp, 36 watts rms, \$80. Apodaca, 266-3269.

TWO SETS of golf clubs, Wilson & Northwestern; Chiltons repair manual for Chevelle, El Camino & Monte Carlo. Barnard, 831-4114 evenings.

BROWNIE JUMPER, blouse, shorts, all size 8, beanie; Boy Scout belt & size 12 shirt. O'Bryant, 268-9049.

SIX A78-13 tires, all for \$8. Arnold, 898-1467.

AQUARIUM, 30-gal., used less than 1 yr., \$55. Crooks, 296-6182.

HIDE-A-BED sofa, \$90. Marder, 268-9643.

KENMORE white dishwasher, \$65; typewriter stand, \$10; ice skates, men's size 11, new, \$25; ladies size 7, \$10. Cox, 299-0480.

ELEC. STOVE, 40" deluxe Frigidaire, turquoise. Pisarra, 294-5806.

RABBITS, including French Lops. Bauer, 268-9735.

6-GAL. Evinrude outboard fuel tank, \$15; replacement foam seat cushion for '71 Chevy or GMC truck seat, \$5. Brown, 296-9009.

SOFA, traditional, subdued blue/olive, quilted stitching, 88", 6 separate cushions, \$225. Vandeveld, 255-8174.

TURBINE MAG WHEELS for Chevy truck or van, 2 7"x15" & 2 8"x15" w/chrome lugs, \$65/pr. Shannon, 821-6017.

THREE vacuum cleaners: 2 upright, one canister; refg. ac, 17,000 BTU; Lenco Servo controlled turntable, 2 Dynaco amps. Stoker, 821-3354.

PIONEER KP292 Underdash cassette player w/matching 6x9 Pioneer speakers; black Resistol western hat, 7/4, cost \$75; skateboard. Lane, 884-4566.

1/2 ROLL-A-WAY bed innerspring mattress, \$50. Lowe, 299-7725.

ROLL TOP DESK, \$150; 8-track player w/recorder plus 2 doz. tapes, \$50. Hankey, 822-0130.

GARDEN TRACTOR, 8 hp., elec. start, cultivator, dozer, disk harrow, 3 plows, tiller, trailer, spare parts & accessories. Elskes, 255-5361.

FREEZER, harvest gold, \$250; Magnavox stereo console, \$75; decorator lamp, \$25. Clement, 299-2324.

COUCH & CHAIR; washing machine; large wooden cabinet. Barbera, 13209 Monarch NE, 299-6045 after 5.

ANTIQUO OAK vanity w/beveled mirror, \$250; kingsize bed, \$75;

antique piano, burl walnut finish, recently tuned, \$400. Graham, 268-9643.

FURNITURE: solid maple dining table & chairs; sofas; beds, etc., 10 a.m. Sat., June 27, 8907 Los Arboles NE. McIlroy, 299-4977.

VOLLEYBALL net & ball, \$40; bicycle exercise, stand mounts on rear wheel, tension control, \$15; coffee table, \$50. Waite, 867-5953.

TRAVEL TRAILER, sleeps 6 to 8; equalizer hitch; 13" mag wheels; bunk beds; antique oak wash stand. Clark, 884-8266.

SHOP VACUUM, \$20; twin bed set, \$100; table & 4 chairs, \$100; 16" bicycle, \$20; rocking horse, \$20. Peterson, 821-2236.

AQUARIUM, 55-gal., w/sturdy stand, aerator pump & heater, \$50. Church, 281-5215.

FREE landscaping rock if you haul it. Hendrick, 296-2163.

2-WHEEL DOLLY, \$15; porta-potty, \$30; Sears Craftsman router guide for panels on drawers/doors, new, \$40. Stevens, 299-6086.

SAXOPHONE w/case, \$125; Gibson banjo ukelele, \$300; N.Y. Epiphone banjo ukelele, \$250. Cooper, 869-2198.

### TRANSPORTATION

'79 HONDA 750K, will take \$2300, 32,000 miles. Gallegos, 255-5264.

'55 T-BIRD, black, removable hardtop, tonneau cover, auto., all power, fenderskirts, wide whitewall tires. Vigil, 296-3590.

'71 PONTIAC Catalina, AC, PS, PB, AT, Royce 40-ch. CB base station, 4 yrs. old. Booth, 296-3955.

'79 MERCURY Monarch, 6-cyl., AT, PS, PB, PW, AC & cruise, take over payments. Beaudet, 299-0849.

'79 MALIBU classic stn. wgn., low mileage, loaded, \$5095. Martinez, 821-8692.

HONDA TL125 trail bike, \$425; motorcycle trailer, \$100. Loescher, 299-9477.

'79 DODGE Omni 024, 2-dr. hatchback, 4-spd., AM-FM, deluxe pkg., big 4-cyl. engine, many extras, \$4950. Roeschke, 298-0365.

DIRT BIKE, Azuki, Shimano coaster brake, 22" frame, pads, knobby tires. Tischhauser, 293-9768.

'76 CHEVETTE, low mileage, CPE HB std. trans., AC, FM, 8-TR stereo, sports wheel, wood grain interior. Foster, 299-6240.

BICYCLE, 10-spd. Raleigh Rampar R-1, quick-release front hub, toe clips, center pull brakes, thorn resistant tubes, \$110. Quigley, 884-4214.

'79 DODGE 4-wd 150, WSB, club cab, PS, PB, 318 C.I., 34,000 miles. Vigil, (1) 832-6345.

'77 KAWASAKI KZ650, 15,000 miles, w/wo/touring accessories & headers, new Continental tires, battery & more. Barnard, 831-4114.

'73 MUSTANG MACH I, auto., 351 Cleveland, PS, PB, AC, stereo, \$1800. Martinez, 294-2846.

'68 OLDS 98 sedan, orig. owner, uses reg. gas, loaded w/extras, \$975. Becktell, 884-5237.

'76 HONDA 400cc, 4-cyl., many extras, prof. maintained. Baca, 299-2036.

'77 250 BULTACO PURSANG (dirt bike), lots of extras. Trujillo, 299-0087 after 5:30 p.m.

'79 FORD Mustang, take over payments. Burns, 281-1298.

'77 VW RABBIT, new upholstery, AC, AM-FM radio, \$3500 or reasonable offer. Weishuhn, 293-2166 after 5.

'74 BLAZER, 4-spd., 60,000 miles, many extras, \$2850. Stone, 821-5070.

'79 DATSUN 210 wagon, 4-spd., AM-FM, AC, new tires, 28-34 mpg, \$5200. Scranton, 869-6589.

'71 TRIUMPH Spitfire, rebuilt head, new clutch, new top, tonneau cover, car cover, spare parts, AM radio. Kraynik, 294-1043.

'75 PEUGEOT, sun roof, radio, std. trans., 45,000 miles, \$2900. Clement, 299-2324.

BICYCLE, girl's 20" Gitane, banana seat, highrise handlebar, \$60. Shenk, 296-6015.

'63 VW BUG, 117,000 miles, \$1150. Schamaun, 298-5192.

SCHWINN tandem 10-spd. bicycle, new alloy rims & tires, dual rear brakes, \$400. Patton, 897-3150.

'77 CHEVROLET 1/2-ton pickup, C-10, 250cc, 6-cyl., 3-aps (on column), PB, 8' bed, straight sides, white & blue, below book value. Skinner, 242-8469.

'67 FALCON sport coupe, new paint, new vinyl top, AC, AT, 289 engine. White, 293-2219 or 293-5812.

10-SPD. bicycle, Schwinn Continental II, 20" frame. Keeler, 299-1542.

'70 100cc KAWASAKI Trail Boss, 10-spd., 2700 miles, street or trail. Dugan, 821-0691.

'73 BMW 2002, 4-spd., AC, low mileage, AM-FM cassette, new radials, newly rebuilt engine, \$3495. Barnes, 299-6275 or 292-5293.

SUZUKI 100 dirt bike, needs minor repairs, best offer. Clark, 884-8266.

'69 MUSTANG convert., 351C engine, 4-spd.; extra 351W eng., \$3500. Cooper, 869-2198.

'73 FIREBIRD, full power, AC, full gages, orig. owner, 57,000 miles, \$2900. Arnold, 294-7160.

### REAL ESTATE

NW location, 3-bdr. Candlelight home, 2 yrs. old, easy access to freeway, assume 10% loan, below appraisal, \$59,500. Chavez, 831-9591.

3 ACRES cultivated, irrigated, near route 47, 6.6 miles south of Valencia Y, below market value. Burton, 869-2541.

1900 SQ. FT. 3-bdr., 20x22 greatroom, fp, storm windows, 2-car garage, 15x30' covered patio, barbecue, \$70,000. Spradling, 7304 Winans Dr. NE, 821-4777.

LITTLE TURTLE townhome, 1226 sq. ft., 1 bdr., den, fp, garage, tennis, pool, 9% loan, below appraisal. Burd, 884-9133.

ZUZAX MOUNTAIN, 10 miles east of Juan Tabo on north side of I-40, 5K per acre, 10% interest, min. 3-acre. Molina, 247-9671 after 7.

27 ACRES mountain land at La Madera east of Sandia ski area, terms,

will consider selling part. Clement, 299-2324.

FIVE ACRES northeast of Edgewood, \$10,000 cash. Williams, 266-6724 after 5.

3-BDR., 1 1/2 bath, brick, 72x135' lot near Annunciation & Sandia High, owner will finance. Baker, 299-6848.

2-BDR. house, 2927 Sierra NE, \$44,900, 15 yrs. term, 10% interest, \$8000 down, \$415/mo. payments. Miller, 266-0939.

CONDO, NE heights, luxury 2-bdr., 1 1/2 bath, view of Sandias, financing available w/2500 down, \$50,900, all appliances included. Persinski, 299-1752.

### FOR RENT

NEAR UNM, 2-bdr. house, LR w/fp, DR., ut. rm., fenced yard, can lease until Oct. 1982, \$400/mo., \$200 DD. Cooper, 869-2198.

### WANTED

WANT RIDE Salt Lake City and return, pay half gas, Sept. or early Oct. Matlack, 256-7371.

ROLL-A-WAY BED. O'Neil, 892-6754.

UTILITY TRAILER, approx. 5'x7'. O'Nan, 884-4973.

BOOKS for U of A Integrating I Seminar. Biltz, 265-8274.

DIFFERENTIAL for 1970 Ford pickup, 3/4 ton. West, 281-3460.

USED fiesta skirts in good shape, at least 25" long, colorful, or velvet. Sinclair, 884-7096—weekend mornings.

APT./CONDO on Kauai for week of Oct. 25 or Nov. 1. Adams, 256-7265.

SCIENTIFIC & engineering instruments: old but serviceable or repairable, e.g., sextants, microscopes, barometers, balances, transits, theodolites, etc. Hughes, 299-6674.

CAMERA outfit, 35mm SLR, auto. exposure, telephoto lens, flash attach., carrying case. Pavelko, 296-3346.

BABYSITTER willing to take infant, mostly weekend evenings, prefer older person. Noack, 268-4806.

CHILDCARE in my SE heights home near base, experienced adult, references available. Silva, 255-3723.

WANT TO RENT: ski boat Aug. 12-19, Lake Powell, Conchas; also late July 3-4 days, cash or RV use. Breeding, 298-5314.

BODY BUILDING WEIGHTS, 5# & less for fine tuning. King, 298-2628.

VOLUME #1 Byte magazine. Stoker, 821-3354.

STURDY 2-dwr. file cabinet, preferably w/built-in lock. Lane, 884-4566.

10" TABLE SAW w/1 hp motor or larger. Quinlan, 266-3164.

### WORK WANTED

YARDWORK, experienced teenagers working for team travel expenses, references, ask for John, Luke, Mark Atkins. 298-5762.

## A Grand, Glorious Fourth of July

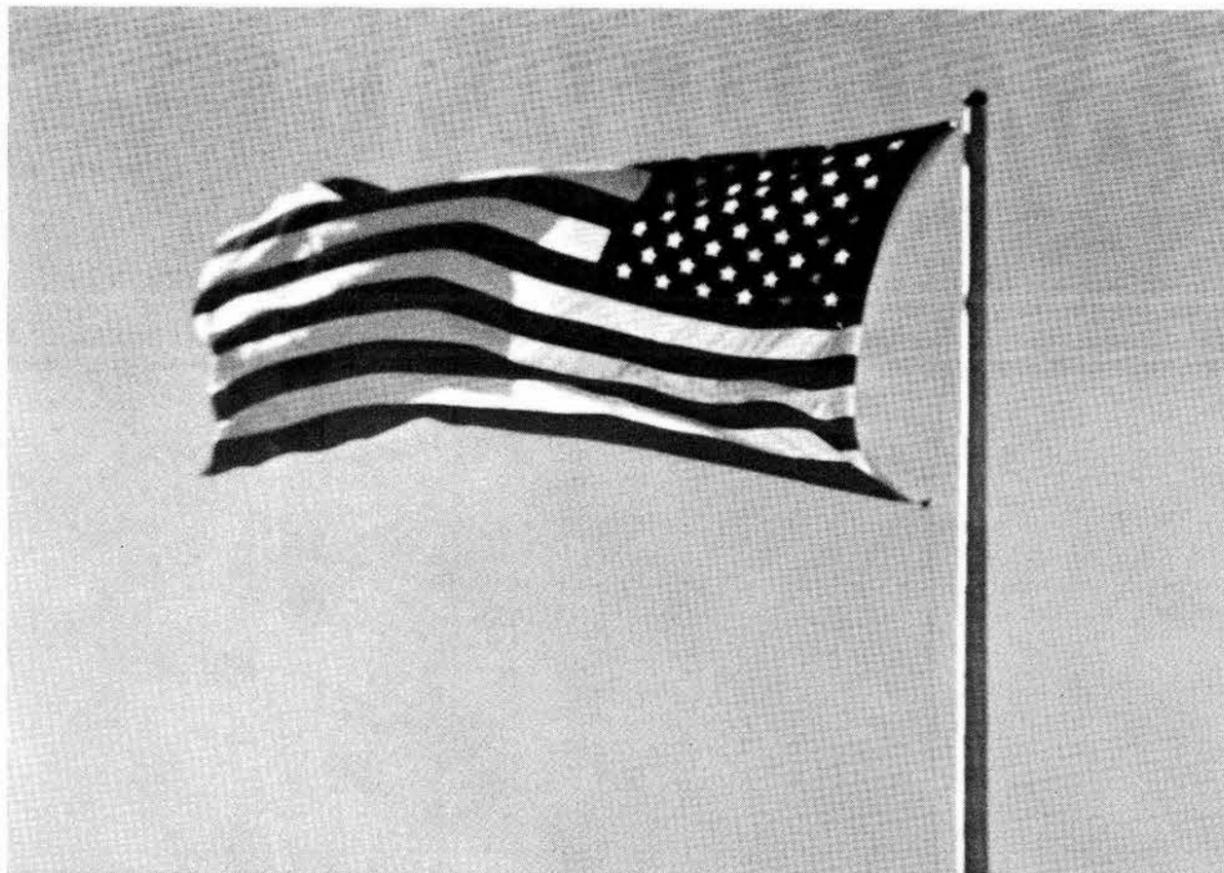
**TONIGHT** at Happy Hour Al Hurricane is on the bandstand and a Mexican food special is the buffet spread—Rio Grande style enchiladas, tamales, burritos, refried beans and assorted goodies. There will be a \$2 cover charge for those who skip the buffet to use the ballroom after 6 p.m. The pool, patio and snack bar will be open until 9 p.m. if you want to stash the youngsters outside.

Next Friday, July 3, the Club is observing Independence Day along with the Labs and will be closed.

**THE FOURTH OF JULY** is always a biggie at the Club. It's an old-fashioned community picnic with flagwaving and a big brass band. Actually, it's the 75-piece Albuquerque Municipal Band playing a concert at noon. There'll be fun and games for all ages—horseshoe tournaments, three-legged races, men's spoon dive, balloon tosses and like that. Here's a chance to live it up or simply to relax. The kids enjoy it either way.

**THE REDONDO ROUND DANCE** group will skip its meeting July 2, but will offer a series of intermediate round dance lessons on Thursdays, starting July 9. For more info, call the Club office, 265-6791, or Betty or Charlie Clendenin, 299-2071.

**THE CORONADO GRAND SQUARES** are alternating Monday night square dancing with the Church House Squares of the Heights Cumberland Presbyterian Church during the summer months. Square dancing will be at the C-Club on the second and fourth Mondays during July with the Church House Squares hosting on the first and third. Dancing will be from 7 to 10 p.m. with workshops scheduled the first half-hour of each night. Anyone interested in joining the group is invited to attend the sessions.



**CELEBRATE INDEPENDENCE DAY** July 4 at the Club's pool and patio party from 11 a.m. until 6 p.m. The Albuquerque Municipal Band plays a concert starting at noon, and there's fun and games all afternoon.

**TRAVEL**—Sign up now for the Coronado Club south trip—Mazatlan either Nov. 2-9 or Nov. 9-16 for \$369 per person. The package includes airfare, seven nights at the Playa Mazatlan, transfers, tips, taxes and a cocktail party. Or visit Cozumel (various dates) for \$359. Or try a Caribbean cruise Dec. 13-20 on the S.S. Mardi Gras out of Miami for \$1031. Ports of call include Miami, Nassau, San Juan and St. Croix.

A number of short, inexpensive charter bus trips are available—Cumbres-Toltec, July 26 or Sept. 26, \$42 adults, \$30 kids under 11; Gallup Indian Ceremonial, Aug. 8; \$28; Juarez/Carlsbad Caverns/Ruidoso races, Sept. 4-7, \$145; Las Vegas, Sept. 13-16, \$110; Canyon de Chelly, Oct. 24-25, \$78.

For details on any of these travel packages, call the Club office or see travel

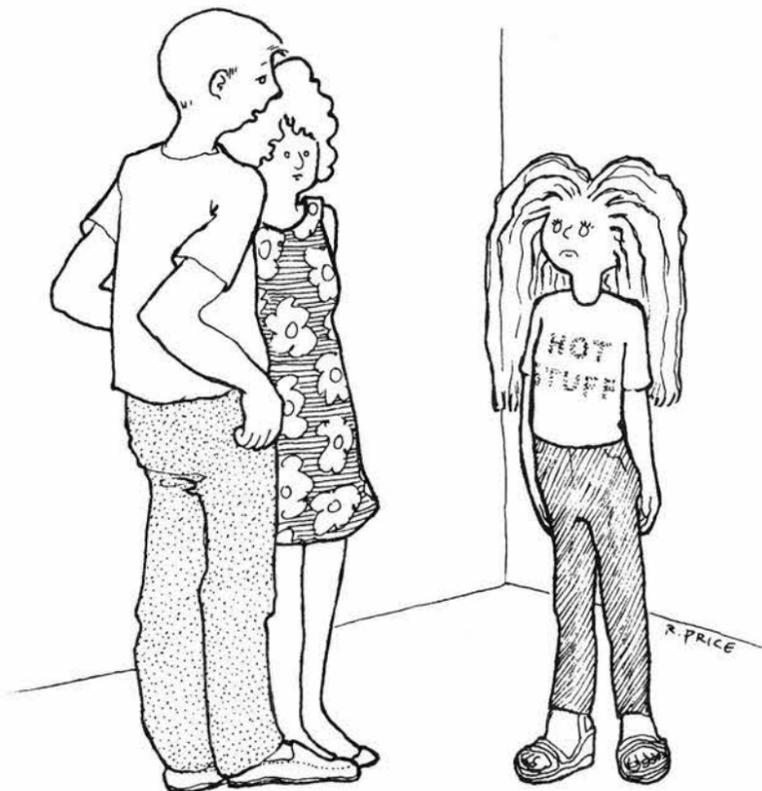
director Frank Biggs in the lobby tonight between 6 and 7.

**DON'T FORGET** the Kids' Dog Show Sunday, June 28 at 1 p.m. Everyone is invited.

## Events Calendar

- June 26-28—NM Arts & Crafts Fair, State Fairgrounds.
- June 26-28—Italian-American Festival—food, games, rides, dancing, Rio Rancho, Sara Rd., Fri. 6 p.m.; Sat. & Sun., 1 p.m.
- June 26-28, July 2-5, 9-12—"A Hatful of Rain," Adobe Theater, 898-3323 after 2 p.m., Wed.-Sun. during run.
- June 27—Chamber Orchestra of Albuquerque, 8:15 p.m., Keller Hall.
- June 28—Arts in the Parks: Tiguex Park, "Experience Day"—workshops on drama, dancing, magic and face painting. July 5—Taylor Park, "Carnival Day"—magicians, jugglers and Frisbee demonstration, 2-5 p.m., no charge.
- June 28 through Sept. 20—NM Crafts Show, Albuquerque Museum.
- June 29—Lecture Under the Stars—"An Evening with Harold Littlebird" (of Santo Domingo/Laguna heritage, poet, potter, teacher, singer), UNM Central Mall, 8 p.m.
- July 1-2—"The Travels of Gulliver," Albuquerque Children's Theater, 10 a.m. & 2 p.m., Popejoy, 268-6561.
- July 3—Santa Fe Opera—"La Boheme"; phone orders (VISA or MasterCard only) accepted 10-5, 1-982-3855.
- July 5—Open House, Old Cienega Village Museum, 10 a.m.-4 p.m., Rancho de las Golondrinas.
- July 9-12—Rodeo de Santa Fe, rodeo grounds (south Santa Fe city limits).

"I'm sorry honey, but your mother and I think that false eyelashes are just inappropriate for fifth grade."



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