

# Magma Movement Is Hot Issue

In the Mammoth Lakes region of central California, Sandia scientists are heading a cooperative project with several agencies under the auspices of the Thermal Regimes Activity of the Continental Scientific Drill Program.

John Rundle (1541) and John Eichelberger (1543), along with others from Harry Hardee's Geophysics Research Division 1541, spent much of the summer in the Long Valley caldera, a 10- by 20-mile depression created three-quarters of a million years ago when an estimated 150 cubic miles of rock and ash erupted, causing a surface collapse. (By comparison, Mt. St. Helens produced only about one-tenth of a cubic mile of ash in its 1980 eruption.)

Earthquakes and underground magma movement near Mammoth Lakes have increased in recent years, making this site especially interesting for scientific investigations. The study project includes searching for an underground magma chamber that might be tapped for an energy source, measuring earthquake activity, and drilling into fracture zones to learn more about their physical properties.

Located just southeast of Yosemite National Park in a popular recreation and winter ski resort area of the Sierra Nevada, the Mammoth Lakes region and its residents have been shaken in recent years not only by several earthquakes (measuring as high as a magnitude of 6 on the Richter scale), but also by the U.S. Geodetic Survey declaration of the town as an area of "potential volcanic hazard," a warning

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## Sandia in Lead Lab Role

## Weapons Complex Linking Via CAD/CAM

In Heinz Schmitt's Weapon Development Department III 9340, Sandia is assuming the lead lab role in developing a system to link CAD/CAM technology between all of DOE's weapon design and development labs and the production agencies in the nuclear weapon complex. A new Division 9345, under Don Doak, is being established as the project group for this new laboratory mission.

This task was assigned to Sandia by Maj. Gen. William Hoover, DOE's Director of Military Application, in a letter to President Dacey.

The letter said, "An important facet of our overall plans for the utilization of computer-aided design/computer-aided manufacturing (CAD/CAM) technology is the linking of the nuclear weapons complex CAD/CAM capabilities into an integrated network. To focus this effort, I am designating Sandia National Laboratories as the lead laboratory to develop and implement a cost-effective approach for integrating nuclear weapons complex

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REPORTERS tend to be more interested in area's earthquake potential than in magma chambers, but John Rundle's studies include the kind of tectonic instability that accompanies both magma movement and earthquakes. From left, Jennifer Foote of the *San Francisco Examiner*, John, two reporters from the *Mammoth Lakes Review*, and Ken Kashiwahara of ABC-TV. (Photos by Barry Schrader)



# LAB NEWS

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CHAIRMAN OF THE BOARD of AT&T, Charles Brown, visited Sandia for the first time on Oct. 1. He spent the morning in briefings on Sandia and DOE/AL, addressed the Albuquerque Chamber of Commerce during lunch, then toured Area IV and Coyote Test Complex, where he observed a pull-down nosecone test at the Old Cable Site. On Oct. 2, he and Mrs. Brown were guests of Charlie Hines (3154) aboard a balloon that took part in a mass ascension during the Balloon Fiesta.

# Antojitos

Triathlons Revisited--Our last comment on such events prompted some suggestions for new types of triathlon competition. For example, the Frontiersman/woman Triathlon: milk a cow, tan a deer hide, and fell a tree. The Homeowner's Triathlon: insulate an attic, split a cord of wood, and locate a source of 12 percent financing. The Retiree's Triathlon: catch 65 fish (or play 54 consecutive holes of golf), explain the nuances of IRA plans, and re-acquaint yourself with your spouse. Finally, the Singles Triathlon: mix a perfect martini, tune a Porsche, and get Club Med reservations for the Christmas holidays.

\* \* \*

Onward and Upward with Uncertainty--From an abstract of a National Bureau of Standards report: "The modifications of the commercial apparatus described in this report resulted in approximately a four-fold improvement in uncertainty."

\* \* \*

New Member of the Wrong-Way Corrigan Society--I don't know what it says about geography instruction, hitchhikers' intelligence, or the pervasive belief in a spherical earth, but on Sept. 28 there was a hitchhiker along the eastbound lanes of I-40 holding a destination sign reading ARIZONA. ●BH

## Eighth Grader Asks Experts

Public Information Division 3161 fields all the requests for information that come addressed simply to Sandia. Jim Mitchell [3160] knew just where to send a provocative one from an eighth grader in Gallup. Jim remembered that John Freeman [1241] was a Gallup high school graduate and asked Phyllis Wilson [3161] to forward the letter to him.

We're reprinting both query and answer letters to show that there are some inquisitive young minds out there—and to recognize John's willingness to take such queries seriously.

Dear Sandia: If you could trap a beam of light in a magnetic field, would the light keep bending in the field and finally shape itself into a sphere? And could you tell me how an ion engine works? Also, what is the theory of unified energy? Thank you!!  
S/ Aaron Urbina

Dear Aaron: Your letter contained three questions, namely, what does a magnetic

field do to a beam of light, what is an ion engine, and what is the theory of unified energy? The first is, I think, the easiest to answer. Even at the highest magnetic field strengths, there is only a very slight force which the magnetic field applies to a beam of light. This is true even in astrophysical regions where very strong fields might exist. Thus, there appears to be no condition under which a magnetic field will roll up a light beam.

To answer the question about ion engines, I am enclosing a copy of an old (1966) article which was published in a book entitled *Plasma Physics in Theory and Application*, edited by Wolf B. Kunkel. It contains an excellent review of several possible devices.

Regarding a theory for unified energy, I am only aware of what is called unified field theory. This theory is attempting to find a connection between many forces in nature, for example, the gravitational field, electromagnetic fields, and the forces which bind together atomic and subatomic particles. Such a theory would attempt to explain all of these forces using a single general theoretical explanation. Some progress has been made recently, though much work remains. I believe that at least one of the recent Nobel Prizes was shared by some of the researchers involved in this work, including, I believe, Dr. Abdus Salam.

I lived in Gallup from 1956 through 1964 and graduated from Gallup High School in 1960. I joined Sandia in 1964 and have recently been working on applications of intense particle beams, including controlled thermonuclear fusion for energy applications.

Your letter was interesting and I hope you continue to study physics problems. There are many fascinating unsolved problems and many useful careers available.

S/ John Freeman, Supervisor  
Plasma Theory Division 1241



DENNIS KIRSON (3662) and some very young Chinese friends at the Asia-Pacific Region Boy Scout Jamboree in Korea. The Chinese contingent included 23 Girl Scouts.

## Sandian to Korea For Scout Jamboree

Dennis Kirson (3662) is a fire prevention engineer who has been with the Labs almost a year. Before coming to Sandia, he was with Brookhaven National Labs.

For 16 years, Dennis has been working with the Boy Scouts of America and, for the past 10 years, he's been a Scoutmaster and a member of his former district training committee.

Dennis continued his scouting work when he was in Korea for a year during 1975-76 as a civilian Command Fire Prevention Engineer with the Eighth U.S. Army. While Scoutmaster for a troop of U.S. dependent children in Korea, he made friends with various Korean scout leaders.

Because of his personal interest in the Korean Boy Scout program, Dennis attended the 8th Asia-Pacific Jamboree held in Korea last August. Twelve thousand scouts, including 900 from 29 foreign nations, attended the seven-day jamboree that commemorated the 60th anniversary of the founding of the Boy Scouts of Korea and the 75th anniversary of the beginning of the Scout movement by Lord Baden-Powell in England. The scouts camped on the slopes of Mt. Togyu, a national park in Cholla Book-do Province, about 160 miles south of Seoul.

"Jamborees are always fun," Dennis says, "especially the international ones. You can see these youngsters learning something new each time they make contact with a scout from another country."

Typical Korean entertainments were held each evening, and some of the foreign scouts also performed their native folk dances for the group. A "Grand Campfire" program on the eve of the jamboree's closing featured Korean folklore and fireworks.

Following the jamboree, the foreign scouts left for homes of their counterparts in various cities and provinces for a three-day stay to further their new friendships and understanding of the Korean way of living. Dennis joined his wife and two sons for an eight-day visit with his wife's relatives in Seoul.

"These jamborees are an excellent way to promote international friendship and understanding among the participants," Dennis says, "and we all hope that the experience will become a lifelong benefit."

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## Supervisory Appointment



MIKE BASKES to supervisor of Scientific Computing Division 8332, effective Oct. 1.

He joined the technical staff at Sandia Livermore in 1969, first working in the materials department, then later moving into the theoretical division where he remained until now. His most recent work has been the study of the behavior of hydrogen and helium in metals.

Mike's education includes a bachelor's degree in engineering and a PhD in materials science, both from the California Institute of Technology at Pasadena.

His hobbies are snow skiing, tennis, swimming, bridge, and gardening. He and his wife Carole and their son and daughter reside in Danville.



ONCE A QUEEN, ALWAYS . . . Jerry Nerton (8336) reigned as queen of the first Fiesta del Vino in Pleasanton 47 years ago. Then this fall the annual Heritage Days committee decided to honor the 1935 queen once again, this time as Grand Marshal of their parade. So Jerry again rode down Main Street at the head of a parade,



## SANDIA LIVERMORE NEWS

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### Affirmative Action Reaffirmed

Dick Claassen (8000) told supervisors at the recent Affirmative Action briefing that no discrimination charges are currently outstanding against Sandia Livermore, "a delightful position here at the laboratory."

He said this emphasizes a point to keep in mind: "Overall, Sandia Labs has done a very good job with regard to affirmative action. We've had aggressive recruiting programs, and we've been successful in hiring fully qualified minorities and females. We also have had some promotions, and we're building a platform to have more. In my opinion, Sandia is doing a very good job."

Referring to the opening statement from Tom Cook (20) in the '82 Affirmative Action Program book, he quoted this portion: "Providing minorities and women with equal opportunity is the responsibility of all employees by virtue of their capacity to establish a positive work environment and climate of cooperation. Supervisors are in a position to promote equal opportunity as a consequence of their authority to recruit and hire people, assign work, and assist in the development of all employees. I consider your responsibility in this matter an important aspect of your job as a supervisor."

Dick went on to say, "We certainly respond to pressures from the federal government for affirmative action, but we also, as management, look at this and say, 'If we have a good affirmative action program, that's good for the Laboratories.' We in management want to make use of the talents of all people; we certainly do not want to deprive ourselves of the talents of any individual because of some superficial difference. Let's remember we do this program for two reasons: First, we have to respond to federal program requirements, but, second, and more importantly, we want to do the very best management job here—that includes giving full opportunity to every individual." He also said that, despite press reports, Sandia has no evidence that the Reagan administration has backed off on affirmative action enforcement.

Carol Verity, supervisor of Personnel II Division 8216, handles affirmative action for Sandia Livermore. She discussed the compliance review conducted here this summer by the Office of Federal Contract Compliance Programs, U.S. Department of Labor. Sandia's new EEO coordinator, Don Charlesworth (8216), spoke briefly about plans for the coming year.

#### Sympathy

To Ted Sneddon (8461) on the death of his mother in Tamaqua, Pa., Aug. 27.

To Carl Lundbom (8273) on the death of his mother in Greensburg, Pa., Aug. 29.

To Christine Yang (8453) on the death of her father in San Diego, Sept. 4.

To David Abrahams (8413) on the death of his mother in San Mateo, Sept. 5.

To Gene Lopp (8271) on the death of his mother in Albuquerque, Sept. 7.

To Ken Mitchell (8168) on the death of his father in Midway, Ark., Sept. 11.

To George Rafal (8257) on the death of his father in Livermore, Aug. 25.

To David Dannenberg (8413) on the death of his father in Garrett, Ind., Aug. 27.

To Jackie Garrett (8214) on the death of her mother in Santa Rosa, Aug. 29.

### Take Note

Jack Jones (8274) was recently awarded the U.S. Department of Commerce certificate of appreciation by Director Ernest Ambler for Jack's major contributions to the first documented test of the Initial Graphics Exchange Specification (IGES). Jack worked with Bendix Corporation, Kansas City Division, in successfully exchanging three-dimensional model data of a sample mechanical part between two different computer graphics systems by way of the recently approved ANSI standard IGES format. The Commerce director said, "The IGES technical effort of 52 companies coordinated by the National Bureau of Standards has truly benefited from Jack Jones' work. His documented results formed the basis for increased intersystem testing among seven different vendors."

this time in a convertible, rather than on the Queen's float of 35 years ago. Shown as Queen Geraldine Ratti in the photo at top left, she is the daughter of the late John Ratti, well-known restaurateur in Pleasanton. Jerry has been employed at Sandia Livermore for 23 years.

## Supervisory Appointments

BOB TRUDO to supervisor of Communication Engineering and Services Division 2615, effective Oct. 1. This newly created division will provide all necessary data communications within Sandia, coordinate message transmission capability between Sandia and other laboratories, and offer some initial design as well as all service for the communication systems.

Bob joined Sandia in 1964 as an engineering staff assistant with a research group. He worked in the X-ray crystallographic lab until 1975 when he transferred to the computer directorate as a troubleshooter on technical problems. This work led to the formation of the communications organization where Bob headed the Computer Communications Section 2612-1.

A graduate of the DeVry Technical Institute in Chicago, Bob has also done undergraduate work at UNM. He is a licensed pilot and enjoys flying and hiking. He and his wife Adrienne have three children and live in the NE heights.

\* \* \*

DOUG BUCK to supervisor of Financial Systems Design Division 2625, effective Sept. 16.

Doug joined the Labs as a systems analyst in 1966. He later worked in purchasing and budget organizations and then returned to the computing directorate in 1971 as an analyst/programmer. Since 1981, he has headed the Production Control Section 2632-5.

Doug earned a BS and an MBA in industrial management from Texas Tech. He is a member of the Association of Computing Machinery. His activities include his church, backpacking, and skiing. Doug and his wife Bonnie have two children and live in NE Albuquerque.

\* \* \*

CHARLES MIKA to supervisor of Salary Administration Division 3552, effective Oct. 1.

Charles joined Sandia in August 1968 as a systems analyst in the systems and methods organization. He later worked



NEW SUPERVISORS—Bob Trudo (2615), seated; Doug Buck (2625), Charles Mika (3522), seated; Dave Nokes (9344), and Tom Starr (7426).

with a budget group, with a computer organization and, from 1974 to 1978, with the salary administration division that he now heads. For the past four years, Charles has been with Benefits Planning & Pension Fund Management Division 3544.

Charles received a BBA and MBA in finance from Texas Tech. He enjoys traveling, gardening, and cooking. He and his wife Sue Ann live in NE Albuquerque.

\* \* \*

DAVE NOKES to supervisor of W81 Development Division 9344, effective Oct. 1.

Since joining a test equipment group at Sandia in 1960, Dave has worked in the weapons directorate for the past seven years, initially in advanced systems and, more recently, with the W81 group.

Dave received a BS in ME and an MS in applied mechanics from Michigan State. He also earned an MS in computer science from UNM. For many years Dave has been a part of local sports car racing activities. He plays racquet ball, works with the Boy Scouts, and says he really enjoys "messing

around" with home computer programming.

Dave and his wife Anne have three children—two in college and one at home. They live in the NE heights.

\* \* \*

TOM STARR to supervisor of Systems Test Equipment Design Division 7426, effective Sept. 16.

For three years after joining the Labs in 1954, Tom worked with the quality assurance organization and then transferred to the systems test equipment design group that he now heads.

Tom received his BS in EE at the University of Utah and an MS in EE and computer science from UNM.

Tom is club leader of the Sandia Junior Rifle Club and also teaches youngsters hunter safety and marksmanship. He enjoys hunting and fishing but says most of his time is devoted to the show horse circuit—an activity he shares with his daughter. Tom and his wife Virginia also have two grown sons. They live in the north valley.

## Fun & Games

*Ski Swap*—Norm Elliott (5627) of the Sandia Peak Ski Patrol informs us that the Patrol's annual Ski Swap—its 16th—is set for the weekend of Oct. 30. Sellers who wish to register equipment for sale should do so on Friday the 29th between noon and 8 p.m. The sale itself runs on Saturday from 9 to 4 and on Sunday from 2 to 4. The Ski Swap is held in the Agriculture Building on the State Fairgrounds. Both downhill and cross country skis, boots, and clothing will be on sale. Proceeds of the Swap are used by the all-volunteer, non-profit Ski Patrol to purchase medical supplies and rescue equipment for use at Sandia Peak.

*Outdoors*—A new organization, Volunteers for the Outdoors, a coalition of the

many outdoor-oriented organizations in the state, is tackling a project to improve Embudo Park (located at the east end of Menaul in the Sandia foothills) on Saturday, Oct. 30, starting at 9 a.m. The plan calls for construction of erosion

*Football*—Don't buy tickets for the Lobo-Colorado State game on Nov. 13 until we can get you more info on discount tickets for Sandia and DOE employees and dependents. Good seats, too. More later.

control mini-dams, litter removal, landscaping, and trail improvement at the Park. If you'd like to be a crew leader, attend an orientation at the Park on Oct. 23, 9 to 12. Contact Sam Beard (1633), 4-9394, for details.

## Sympathy

To Al Luna (3435) on the death of his sister in Peralta, Oct. 1.

To Bob Byrd (3435) on the death of his granddaughter in Albuquerque, Oct. 1.

To Gila Yaniv (0153) on the death of her father in Tel Aviv, Israel, Sept. 14.



Today's lawn, to be properly cared for, must be awakened in the spring with a chemical fertilizing solution containing nitrogen, phosphorus, and potassium. At the same time, crabgrass seedlings must be put to sleep with bensulide, oxadiazon, and DCPA. During the late spring and early summer, repeated applications of nitrogen in any one of its common forms—urea, urea formaldehyde, or Milorganite—are mandatory. Exigent circumstances may dictate Diazanone, Oftanal, Tersan, dicamba, and methanearsonates. Finally, as fall wanes, massive additional mineral applications guarantee a nutritious winter. There can be no doubt. After a conspicuously unsophisticated past, lawn care now ranks with orthodontia as one of the foremost suburban sciences, and, as a result, lawn care has also become—pun neither intended nor avoidable—a leading growth industry.

Timothy F. Bannon in *Harper's*

Continued from Page One

## CAD/CAM

CAD/CAM capabilities and automating the product definition exchange process."

Technology for the application and exchange of CAD/CAM systems data exists. Sandia and Bendix Kansas City demonstrated a CAD/CAM product definition exchange electronically late last year (LAB NEWS, Jan. 8, 1982). Using CAD, the design organization created a computer data base which defined the weapon product. This data base was electronically transferred using a specific translation between SNLA and BKC. The production agency used this translated data base to generate programs to drive numerically controlled machine tools to produce W85 JTA parts.

"Ideally," Heinz Schmitt says, "a computer data base should be usable in all areas of weapon activity—from concept through design, systems analysis, production, production testing, field testing, and quality assurance. It would be a 'neutral' data base if it provided universal access for both input and extraction for all agencies of the weapons complex. That is, it would contain the information all agencies desired while providing security for classified information."

One of the major problems in integrating a CAD/CAM system within the nuclear weapons complex is the diversity of CAD/CAM systems in place. Not all of these computing systems are compatible. A neutral data base would require "translators" that would provide access for all the agencies.

Such a universal data format specification has been under development in recent years within industry with the National Bureau of Standards as a focal point. The system is called IGES (Initial Graphics Exchange Specification). Sandia is an active participant in the IGES development, and both SNLA and SNLL have had limited demonstration of product definition exchanges with Bendix using IGES.

"Our first task," Heinz continues, "will be to survey communications traffic between the nuclear weapons agencies—there are 11 of them. We know that Sandia generates approximately 80 percent of the product definition used, but only approximately 25 percent of our recent product definition is CAD-generated and in a computer data base. We will have to look at the total experience within the agencies to determine what information is presently exchanged and what makes sense for the weapons complex in the future.

"As we progress in the project," Heinz says, "we'll be asking for help from experts throughout Sandia and from other weapon agencies. Integrating a system will be a joint effort of all the agencies and must be a marriage of design and production agency efforts and needs.

"Our immediate goal is determining what needs to be done, deciding how to do it, and then initiating some pilot projects to evaluate communication approaches. We will be working with real designs—parts of weapon systems under develop-



SANDRA LAYNE (0154) won a first place ribbon at the State Fair with her color photo of prairie dogs. Sandra purchased her first camera last December. Extensive reading, trial and error, and lots of question and answer sessions led to this award-winning entry.



AMONG the featured speakers at the annual Equal Employment Opportunity conference for DOE contractors, hosted by Sandia and Los Alamos, was Ellen Shong, director of the Office of Federal Contract Compliance Program. Bob Garcia, director of Personnel 3500, welcomed the 80 attendees. Gerda Krefft (3511) was coordinator for the Sandia portion of the conference.

ment—that will have to meet the programmatic requirements of function, reliability, quality; schedule, and cost.

"In those areas where CAD/CAM systems are working," Heinz says, "tremendous savings are realized in both time and money. Our objective will be to provide a system that will permit the shipment of weapon products that are better engineered, less costly, and produced in a shorter time. An integrated system within the weapons complex will be a great national asset. In years to come, a new way of doing things will evolve—a change as basic as the transition from the slide rule to calculators to computers. It's already

happening in our microcircuitry and semiconductor labs. Designers and analysts work with a computer-generated data base design, development, and fabrication required for delivery of the final product. Other organizations within Sandia and the NWC are also aggressively pursuing the application of this technology."

Don Doak will be interviewing staff for the new project group being formed to implement the CAD/CAM integration task. He will be looking for Sandians with weapon development and design experience, both ME and EE, as well as for Sandians with the relevant computer science and communication disciplines.

## Magma Movement Is Hot Issue

that means an outbreak of volcanic activity is possible, though by no means certain.

The area has a long history of volcanic activity, continuing from the Mono crater eruptions less than 5000 years ago and the Inyo domes and craters flow beginning about 1000 years ago and extending to the recent past—perhaps 200 years ago.

Rundle is quick to point out that the basic research they are doing at the site is not related to the USGS volcanic hazards program; instead, it involves the long-term study of magma, including its chemical makeup *in situ*, causes of eruptions, and potential for providing an underground energy source through deep drilling. An earlier, related program involving Sandia included placing a heat exchanger into Kilawea Iki Lava Lake, Hawaii, and successfully generating steam with reasonable efficiency.

Working with the Sandians on the magma study are representatives from USGS; California Division of Mines and Geology; Cal Tech; MIT; Brown University; the Universities of Colorado, Wisconsin, and California Santa Cruz. In their efforts to locate and define the magma body deep inside the earth, the researchers planted a series of one-ton high explosive seismic shots 200 feet underground at 11 locations along two lines intersecting the most recent flows. The explosives were detonated twice in August to provide information through shock and sound waves, registered on some 200 seismometers placed for the tests.

The shots produce acoustic waves that pass through the earth both vertically and horizontally. Interpretation of the seismometer data can reveal much about the kinds of materials the sound energy passed through. "From the findings, we can deduce the kind of rock that exists at various depths," says Rundle. "We can also tell whether there is molten magma and at

what depths. The number of people and instruments involved makes this probably the biggest refraction study of its kind ever undertaken . . . It will be a definitive study, which people will use for years to come in investigating volcanic areas."

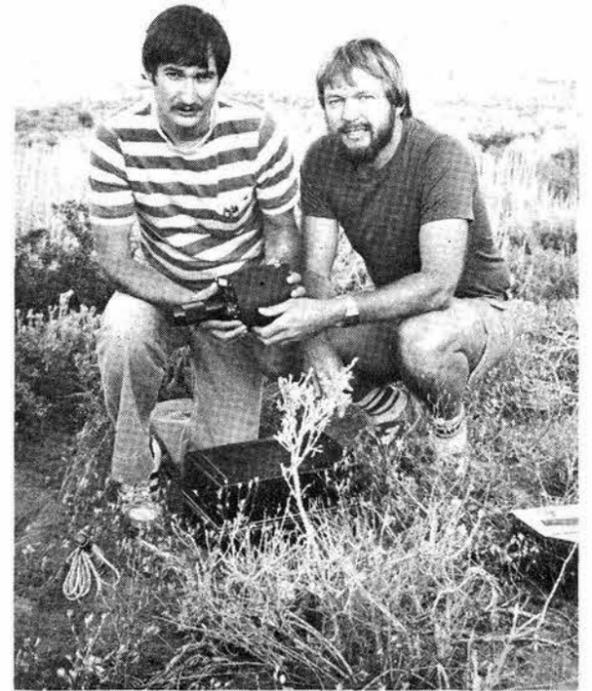
In addition to the explosive shot tests, the Sandians installed a number of gravity stations and seismometers throughout the area to measure changes in the earth's crust down to a depth of six to nine miles.

"With these instruments, we'll be able to spot differences in rock buried perhaps three miles beneath the surface as well as detect the magma chamber at some depth," says Rundle. The Sandians plus Sandia consultant Jim Whitcomb of the University of Colorado plan to use the same instruments to measure the gravitational attraction of the same spots during the next two summers. Any changes in the gravity would probably indicate the injection of magma into an underground chamber closer to the surface than at present.

Eichelberger is studying volatiles in the magma system to understand their role in determining how volcanoes behave. Before the current study, he was involved in theoretical work in the field at Mt. St. Helens. He and Dennis Hayes (1510) recently completed a study of the water content required to produce eruptive phenomena at that mountain, and these results should be quite applicable to Long Valley.

Others from Sandia are drilling several shallow holes for heat flow measurements. They plan to test new equipment to be used in more extensive drilling at a later date.

The Continental Scientific Drilling Program is a national project under the auspices of the National Academy of Sciences. The Sandia team receives financial support from DOE's Office of Basic Energy Sciences.



SEISMOMETERS, like this one held by Rundle and Jim Whitcomb, a Sandia consultant from the University of Colorado, were placed about every third of a mile along the two shot lines. The acoustic signals produced by each line of underground detonations are refracted from various zones at depth; comparing the signals recorded on the seismometers and noting such features as phase shifts in the acoustic rays provides information on the shape and extent of magma bodies. Early data suggest that an immense magma reservoir underlies the region, near Mammoth Lakes. Future studies may confirm some indications that the magma is pushing closer to the earth's surface.

RETI R I N G



Lewis West (3618)



Betty Cook (3154)



Thurman Foremen (3624)



John Moore (3551)



Johnnie Garcia (1135)



GROUND BREAKING for the new particle beam fusion accelerator, PBFA II, was held last week in Area IV. John Galt (1000) and Gerry Yonas (1200) moved the first earth inside the building that will eventually house a 108-foot-diameter tank 20 feet high, half of it below grade. Inside the tank will be an accelerator that is three to four times more powerful than PBFA I. PBFA II should achieve ignition, perhaps breakeven, and thus may prove a major step on the road toward fusion power. Complete project costs will total almost \$50 million.



CLOCKWISE from the left, the Hall of the People on Tian An Men Square (or Tienanmen in the new spelling) in Beijing. In Soochow, Bob Donohoe (1123) hands out balloons to kids. Ed (2361) and Lu Neidel pose at The Great Wall.



### Unusual Vacation

## Sandians on Oriental Odyssey

*Ed. Note—Taken an unusual vacation recently? Tell us about it. Call 4-1053.*

**耐德** means "perseverance and virtue," qualities long associated with Ed Neidel (2361). But it took a trip to China for Ed to overcome his innate natural modesty and get them down in writing.

"Actually, they're the Chinese ideographs for the phonetic rendition of my name. They just happen to have those meanings," Ed says unconvincingly. "They're on a *chop*—a signature stamp—I had made while I was there."

Ed and his wife Lu, accompanied by Bob (1123) and Dot Donohoe, took a two-week tour of Shanghai, Beijing (Peking), Soochow, and Manila in early August.

"We flew out of San Francisco on a non-stop flight to Shanghai via the Great Circle Route—13 hours and eight time zones," says Ed. The airport terminal was a plain, three-story brick building some distance from Shanghai. Buses took us to our hotel, which wasn't far from the airport. It was quite comfortable, with central air conditioning."

Since the Neidels and the Donohoes were on a medical tour for nurses (Lu is an RN at Anna Kaseman Hospital), the first stop the following morning was a hospital. The group traveled on modern tourist buses through streets "just jammed with people." Pedestrians spilled out into the curb lane so bicyclists were forced into the middle of the street. "This caused a continual din of horns as the buses kept honking at the bikes," says Ed. "There were no private cars, few taxis—mostly buses and army buses and army trucks."

At the hospital, the group observed open heart surgery and noted with interest that Chinese medical personnel sterilize and reuse surgical gloves, syringes, IV hoses and other medical apparatus. "They were surprised to hear that in the U.S. these

articles are used once and discarded," says Lu.

"I was treated for sore chest muscles with a cauterization technique called moxibustion," Ed continues. "The doctor took a glass sphere open at one end. She burned gauze inside and applied the sphere's open end to the sore area for 10 minutes. The treatment offered me some short-term relief, although the doctor told me I needed three acupuncture applications for a permanent cure."

That evening the group attended an acrobatic show. "We were still suffering from jet lag, so most of us fell asleep—what I remember of the performance was very good," says Ed.

A visit to a commune outside Shanghai was on the next day's agenda. The American visitors were given a "tremendous" lunch consisting of 25 dishes, mostly vegetables. The commune not only grew crops but also manufactured clothing for export to Arab countries.

A brief train ride took the tour group to Soochow, center of China's silk industry. Silkworm cocoons are unwound in the city's factories and processed into silk thread.

"We then flew to Beijing in the first plane I've been in that carried a strap-hanger," says Ed. "There was one more passenger than there were seats, so he had to stand the entire flight. I suspect he might have been a security type."

"We stayed at the Evergreen Hotel, which had formerly been a cadre training center—it was surrounded by a brick wall with barbed wire along the top. Dot and Bob found the gate locked when they wanted to take a walk in the evening. The room wasn't too great, but it had individual air conditioning."

"Of course, the main attractions in and around Beijing are the Great Wall, the Ming tombs, the Forbidden City, and the

Summer Palace. The Great Wall dates from the 7th century B.C. and parts are visible about 80 kilometers from the city. It's 6000 kilometers long but only a small portion is restored. The Ming tombs are near the Great Wall—in fact, it's a combined tour. The tombs consist of 13 burial chambers of Ming emperors [Ming Dynasty, 1368-1644] that are reached via the Sacred Way, a seven-kilometer-long road lined on both sides by statues of warriors and animals.

"Beijing's Forbidden City, a complex of palaces and shrines about 500 years old, was once the emperor's residence and seat of government. Today it's not forbidden to anyone but is maintained as a national monument open to the public. It occupies an area of 720,000 square meters and is surrounded by a 10-meter-high wall and a moat 52 meters wide."

The next stop for the group was Quanzhou (Canton), where they boarded their flight to Manila. "In Manila we experienced the culture shock of reentering capitalist civilization," remembers Ed. "Our accommodations at the Manila Hotel were luxurious, to say the least. Each of our meals was served in a different, and very opulent, dining room."

"Bob and Dottie, both Army veterans, visited Corregidor while Lu and I rode the rapids in a jungle canoe ride. In a U.S. military cemetery, we were moved to come across the tomb of a New Mexican, Joe I. Lujan, although the gravestone didn't give his home town."

*Logistics:* The tour was organized by the Association for Medical Professionals in New York City. The cost of \$1895 from San Francisco included all meals, hotels, and sightseeing (lunches in Manila not included). Summing up, Ed says, "The Chinese were determined that we got our money's worth of sightseeing and we certainly did—we were all dead tired at the end of each day."

## Take Note

National Business Women's Week is dedicated to recognition of the contributions of women to the business and professional world. Sponsored by the Federation of Business & Professional Women's Clubs, the National Business Women's Week was first observed in 1928. This year it will be celebrated during the week of Oct. 17-23. The three local chapters—Albuquerque, Downtown, and Duke City—are working together to observe the week by holding a "Woman of the Year" awards banquet on Oct. 20 at the Elk's Lodge. Each club will select an outstanding working woman from the community.

Program chairmen for the event are Margaret Wetzel (3521) of the Downtown Club and Marcella Florez (0310) of the Duke City Club. Guest speaker will be Dr. Judy Ewing (3330).

\* \* \*

A "short course program" developed by ASME will be held in Phoenix on Nov. 15-20. Course offerings include: life test and weibull analysis, finite element method in stress analysis, fan selection and application, fundamentals of thermal insulation, numerical solution of heat transfer and fluid flow, and building energy conservation analysis. For info on the courses, write or call ASME Professional Development, 345 East 47th, New York, NY 10017 (212/705-7743).

\* \* \*

Sandians working in word processing or typesetting positions are invited to join the International Association of Word Processing Specialists (IAWPS). The group gets together for a monthly luncheon meeting. The October meeting is tomorrow (Oct. 16) at the Sheraton Old Town at 12:30. Guest speakers will discuss generic training for word processing as well as motivation and management. A demonstration of a phototypesetting system will also be presented. Luncheon reservations and more information about the organization can be obtained from Mary Rodriguez (3418) on 883-8424.

\* \* \*

The recently formed CCNY alumni chapter of New Mexico announces that Rosaria Piomelli, dean of the School of Architecture at CCNY, will be the guest and featured speaker at the next chapter meeting on Oct. 30 at 8:30 p.m. Graduates of Queens College, Brooklyn College, and all other CCNY branches are most welcome. There will be refreshments but, sorry, no egg creams or the big pretzels like you buy from the street vendor. For details, call Al Geduld at 881-9881.

\* \* \*

Bill Schaedla (2345) called to tell us that his wife Marilyn was a very busy lady before, and happy lady during, the State Fair. She won 58 ribbons in flowers, canning, and garden produce, the majority first place ribbons.

Ten Japanese musicians, ranging in age from 4 to 14, will present an ambitious program of classical music at Popejoy on Oct. 27 at 8:15. All are students of the world-famed Shinichi Suzuki, who will accompany the group to town. At 2 on the same day, the group will hold a free demonstration workshop at the Highland High School performing arts center. Evening concert tickets are \$4 and \$2 with the proceeds benefiting the Albuquerque Youth Symphony.

\* \* \*

KAFB's Morale, Welfare, and Recreation division sponsors a story hour for 4- to 6-year-olds every Wednesday at 10 in the Base Library. On Oct. 20, the story is "I'm Going on a Bear Hunt"; Halloween arts and crafts and a filmstrip follow the story. On Oct. 27, the youngsters will have a Halloween fashion parade and party.

## Events Calendar

- Oct. 15-16—Albuquerque Opera Theater, "Tosca," 8:15 p.m., KiMo.  
 Oct. 15-16—"Scapino," based on play by Moliere, 8 p.m., Stage One, U of A, 831-1111.  
 Oct. 16-17—5th Annual Doll & Miniature Fair, Agriculture Bldg., State Fairgrounds.  
 Oct. 17—Annual St. Margaret Mary's Feast Day, Laguna Pueblo, harvest & social dances in Paraje Village.  
 Oct. 17—Audubon Adventure Film Series: "Alaska," 7:30 p.m., Popejoy.  
 Oct. 22-23—N.M. Symphony Orchestra Concert with pianist Horacio Gutierrez, 8:15 p.m., Popejoy.  
 Oct. 23—Homecoming at UNM. Football, UNM vs. NMSU, 7 p.m., University Stadium.  
 Oct. 23-24—Chrysanthemum Show, free, 2-6 p.m., Sat.; 11 a.m.-5 p.m., Sun., Albuquerque Garden Center.  
 Oct. 25—Travel Adventure Film Series, "Scotland," 7:30 p.m., Popejoy.

## Deaths



Ernie Peterson, manager of Labor Relations Department 3450, died suddenly Sept. 29. He was 61.

He had worked at the Labs since October 1950. Ernie negotiated some 35 contracts between Sandia and union representatives during the 25 years that he was

responsible for contract bargaining.

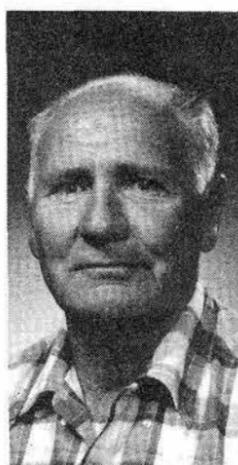
"We didn't always agree," a union official said last week, "but we always respected him and liked him. He was a good friend with a true concern for people."

Ernie was also respected in the national labor relations field. He served on special assignments with the National Mediation Service, National Labor Relations Board, and as an advisor to WE and BTL.

In WWII, Ernie was awarded a Bronze Star for combat actions as an infantry captain in the South Pacific.

Survivors include his widow, two sons, and three daughters. (Lori Kaiser, a daughter, works in Division 3435.)

\* \* \*



Donadieu (Frenchy) Sonnier of Remote Areas Maintenance and Test Support Division 3618 died suddenly Oct. 9. He was 61.

He had worked at the Labs since May 1954, primarily as a heavy equipment operator for field test operations.

Survivors include his widow and three daughters.



George Hielt of Pulsed Power Operations Division 1254 died suddenly Oct. 9. He was 46.

He had worked at Sandia since December 1964.

Survivors include his widow and three daughters.

\* \* \*



Jose Suazo of Shipping and Receiving Division 3417 died Oct. 1 after a long illness. He was 59.

He had worked at the Labs since April 1948.

Survivors include his widow and two sons.

## Retiree Deaths

July—September

Pedro Ortiz (62)	July 3
William Smith (78)	July 6
Rupert Shattuck (70)	July 8
George Farwell (63)	July 23
Octaviano Valdez (81)	July 24
Clifford Fawver (71)	July 28
Edward Stepka (65)	July 28
Joe Benavidez (75)	Aug. 3
William Lansdell (82)	Aug. 6
Maurice Grant (75)	Aug. 12
Ellen Jones (76)	Aug. 12
Andres Sanchez (74)	Aug. 19
William Elskes (66)	Aug. 23
Andrew Blain (65)	Aug. 26
Wynne Cox (70)	Aug. 27
Elma Sabin (74)	Sept. 3
Edward Lister (72)	Sept. 5
Arthur Bullhorse (77)	Sept. 11
Carter Howard (74)	Sept. 11
Franklin Barnett (79)	Sept. 19
Clarence Meister (85)	Sept. 20

# MILEPOSTS

## LAB NEWS

OCTOBER 1982



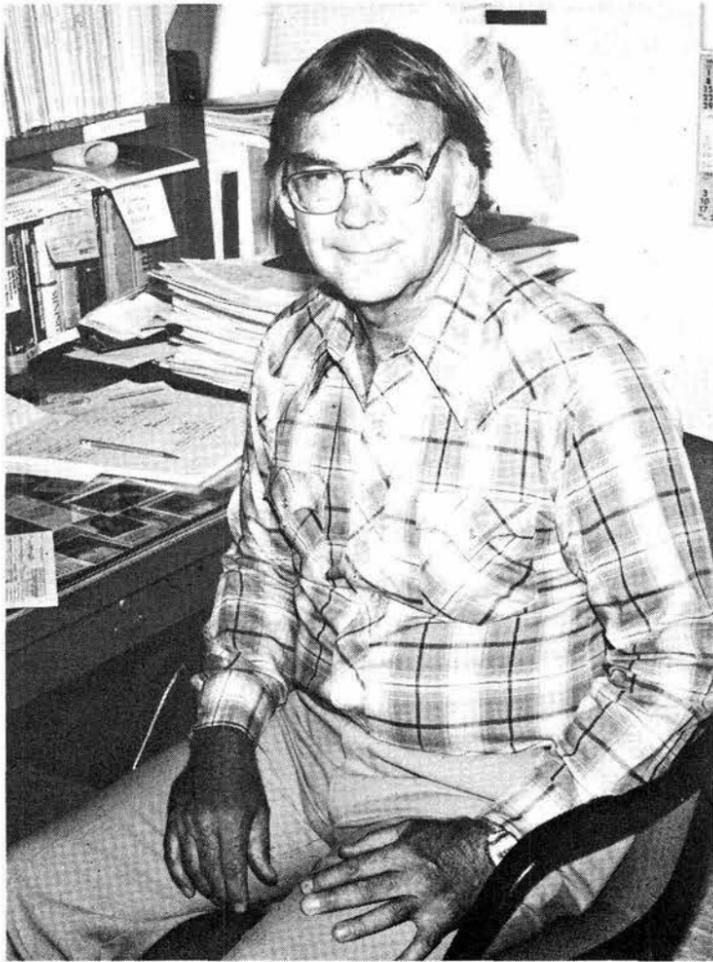
Walter Granfield - 1240 25



Ed Salazar - 9446



35

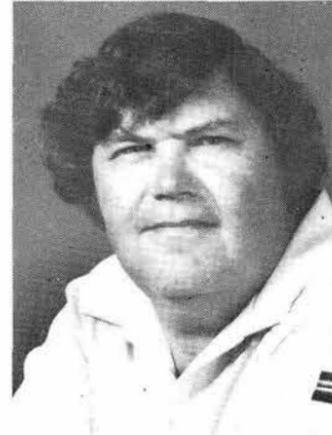


Bob Statler - 7133

35



Jim Peek - 1231 20



Mel West - 8213 20



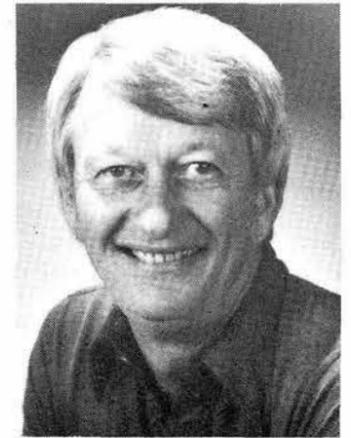
Carl Wackerly - 8414 20



Floyd Philgreen - 7472 30



Don Richardson - 8257 20



Rex Steele - 8442 20



Virginia Eckhart - 2455 10



Bob Williams - 3721 25

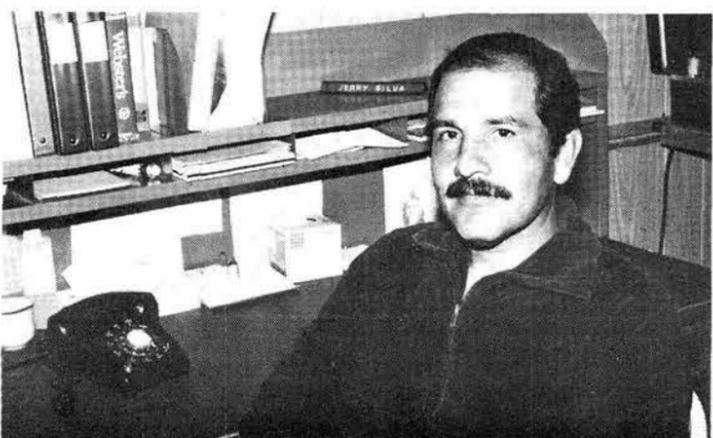


John Hall - 3642 20



Henry Monteith - 7213

15



Jerry Silva - 7582

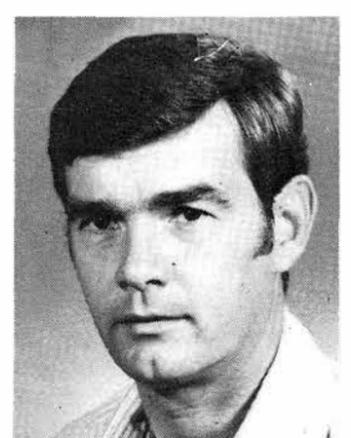
15



Glenn Prentice - 0313 30



Willard Benson - 9323 25



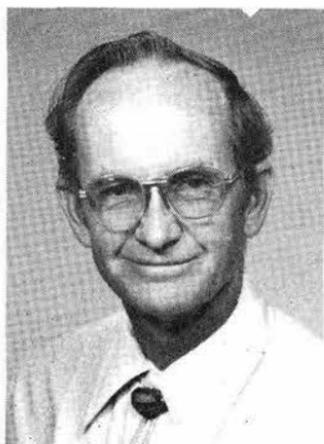
Art Lynch - 9746 20



Harry Lauderbaugh - 8461 20



Blitz Krieger - 8329 30



Bill Sundt - 7222 35



Jack Lawrence - 0122 20



Ray Larribas - 3742 15



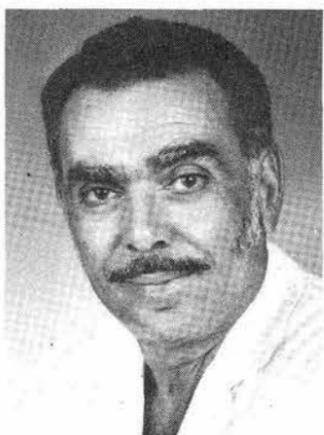
Charles Trauth - 7418 20



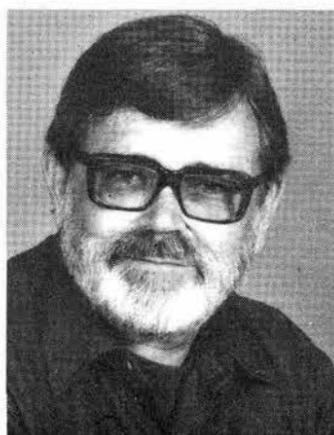
John Ledman - 7470 20



Emily Joiner - 8215 20



John Rogers - 8275 25



Bert Barker - 8334 25



Ray Hibray - 1141 10



Bill Zinke - 8123 25



Frank Maestas - 8123 25



Carl Furnberg - 8162 25



Al Rakoczy - 2426 25



Leo Cordova - 3411 30



Bill McCulloch - 9445 15



Russell Hall - 2612 30



John Hoice - 2341 25



## Favorite Old Photo

[Do you have a favorite old photo? Bring it to MO125.]

That's Dad at right, Jake Young, in Albuquerque in 1927 with his invention—the "pneumatic cushion wheel." The tire was occupied by a series of plungers, radially arranged, that were activated under hydraulic pressure from the oil/air chamber in the center of the wheel. Since the car load was supported by the plungers, rather than by the tire, flats were eliminated. Dad's wheel was patented in this and several foreign countries, and there was commercial interest in it. But that went by the board in the Depression and, with 13 kids, we had a hard time of it in the '30s. A carpenter by trade, Dad helped build the 1st National Bank building and the KiMo and Sunshine Theatres. He died in 1965. (Jake Young, retd.)

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

### CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday. Mail to: Div. 3162 (MO125).

### 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

- ROTH 1/10 size violin; Harmony child's guitar; tricycle; gerbil equipment; 36" chain fireplace screen. Wright, 296-7670
- 1975-76 SHOP MANUALS for Ford cars, 6 volumes, \$15. Baxter, 344-7601.
- FREE to good home: 5-yr.-old spayed Shepherd & 3-yr.-old male cross, both about 55 lbs., have shots. Roblyer, 293-9695.
- WINDSURFER Std.; breakfast set, table & 4 chairs. Bertolucci, 881-4289.
- SAW, radial arm, saw smith on cabinet, \$150; TV antennas, VH & UH w/pole, splitter & lead-in wire, \$10. Krahlung, 268-8126.
- COAL, 1/2 ton, 14/100 lbs. Kindschi, 256-0531.
- 4EA. fluorescent light fixtures, 2-bulb type, 48" long, new, \$9.75. Martin, 869-2049.
- YOUTH GOLF SET: woods & irons, \$30; Minolta 35mm camera, \$50; Roger Decoster racing bike, 23 lbs., all alloy, \$200. Rodriguez, 296-3277, 344-4584.
- YAMAHA student flute, \$125; boy's 20" Schwinn bicycle, \$50. Hickox, 299-0772.
- TI-58 scientific calculator, new battery; tape deck, reel-to-reel 3-head sound-on-sound; binoculars, 7x35; organ keyboard, 61 note, single contact switches. Ingram, 298-0390.
- REAR window w/molding & service manual for 1975 Datsun pickup. Nelson, 265-2248.
- AKC Sheltie, 8 weeks old, first shots. Powell, 1-832-6231, 846-4108.
- 8' OVERHEAD CAMPER, 5 yrs. old, sleeps 4, ice box, heater, elec. water, stove, portapotty, jacks, \$900. Flores, 881-8086.
- IRISH SETTER, spayed female, adult, free to good home. Roeschke, 298-0365.

- '78 COACHMAN travel trailer, 27', self-contained, \$5995. Mora, 242-0299.
- BIRD DOG PUPS: 1/2 Springer Spaniel, 1/4 Brittany, 1/4 English Setter, white w/black or dk. brown spots, \$25, available now. Horton, 299-0106 after 6.
- SABTRONICS 2000 digital volt ohm meter, \$35. Mason, 299-2836.
- ROTOCROP garden shredder, manually operated, new \$99.95, sell for \$15; port. Webster typewriter by Brother, \$35. Chorley, 296-1454.
- SEWING MACHINE, Sears Kenmore, port. w/carrying case, used very little, \$50 or best offer. Mooney, 299-1774.
- FRIGIDAIRE extra lg. refrigerator, ice maker, door dispensers, top freezer, avocado, 4 yrs. old; washer/dryer, copper, all working. Bell, 821-7148.
- EXERCISE BIKE, Sears, \$75. Lee, 298-5871.
- BANJO, lida model 229 w/case, \$250. Stromberg, 255-6131.
- FERRETS, 3 males, 9 wks. old, \$45. Quintana, 268-2513.
- PANASONIC recording, AM/FM radio, record player & cassette, 2 floor speakers, \$100; 2 Sears 13" table model TVs, \$200 ea. Johnson, 255-0262.
- APPLE II Plus, 48K memory, 2 floppy disks, monitor, word processor for IBM typewriter, bookkeeping pkg., clock, lease agreement. Sutherland, 345-1183.
- MOVING SALE in Edgewood, Oct. 23-24, noon-5 p.m., beds, lamps, vacuum, kitchenware & more. Dodson, 281-2649.
- BUTCHER BLOCK TABLE, 4 chairs, \$75; love seat, needs reupholstering, \$20; indoor-outdoor sofa, rocker & end table, \$50. Baca, 294-5249.
- REVOLVERS: Ruger Blackhawk 357 mag., \$225; 22 LR hi-std. Sentinel, \$150; both w/holsters. Schimmel, 296-2295.
- HITACHI video disc player w/1 disc, \$200. Harris, 892-6281.
- SEARS stereo record player for all sizes w/separate speakers, \$30 or best offer. Schneider, 299-6243.
- TAKEMINE classical guitar w/hard case, 1 yr. old, \$450. Page, 268-7102.
- INFANT Bobby-Mac car seat, \$17; Swing-o-Matic infant swing, \$10. Beasley, 865-5850.
- OAK BEDROOM FURNITURE: twin or bunk beds, dbl. dresser w/mirror, student desk w/chair, \$250 w/box springs & mattresses, \$350 with. Davison, 298-8544.
- CAMP BOXES for LWB truck, 3 pcs., each 6' long, 19" high, total price \$40. Wemple, 884-7325.
- MUSIC synthesizer, EML 101, versatile & expandable, has path panel, 4 oscillators, etc., \$900. Hubbard, 842-9431.
- PIANO, upright, reconditioned, \$875. Adams, 881-6836.
- KING SIZE waterbed, 7'x6", complete, \$150. Hesch, 294-3298.
- HOMELITE chain saw roller nose, spark arrestor, new Oregon chain. Cox, 268-5629.

- MAYTAG gas stove, \$50. Rogers, 293-8201.
- TELESCOPE, Tasco, 64x to 266x magnification, 60mm diameter lens, \$50. Miller, 268-5992.
- ORGAN, Lowrey Jubilee, model 525, pecan finish, \$4999 or best offer. Durkee, 255-4211.
- AKC all white German Shepherd, 18 mos. old, has shots, \$100. Scranton, 869-6589.
- SKI RACKS, lockable, used 1 season, \$35. Kelly, 299-7190.
- ALUMINUM storm windows, fit 6'x4', \$45; fit 4'x4', \$40; alum. comb. storm door, 32"x80", \$40; GE toaster-oven, \$7. Stoeber, 296-3717.
- FREE, half-Siamese kittens, 6 wks. old. Rarrick, 255-1283.
- CALIFORNIA Monterey style bedroom set: twin beds, dresser, hanging mirror, \$50. Edwards, 821-3464.
- CLARINET, Yamaha w/case, reed guard, cleaner, key oil, lyre & music stand, \$135. Trump, 299-5162.
- WHIRLPOOL refrigerator, 15.5 cu. ft., self-defrost, 7 yrs. old, \$250. Drumheller, 821-9527.
- PING PONG table w/paddles & net, \$35; 10' bamboo shade, \$8; printers' trays; doll houses. Peterson, 256-7514.
- APPALOOSA MARE, 9 yrs. old, good disposition, pleasure horse, suitable for child or adult, 14-3 hands. James, 281-3045.
- FURNITURE: 2 1/2 x 4 dinette table, 4 chairs, \$50; occasional chairs, velour, \$75, Med. leatherette, \$50; 30" electric range, \$70. Sons, 294-3953.
- 4 NEW BRIDGESTONE 185-70/13 steel belted radials, list new at \$102, sell for \$55 ea.; 4 6"x13" alloy wheels, fit Triumph Spitfire, 6T6, TR7, \$35 ea. Seager, 299-4137.
- LHASA APSO, 9 mo., female, golden red, AKC reg. Alvarez, 821-6817 after 4.
- CHAIRS, set of 4, Med. style, 2 gold velour, 2 blue, \$200. Cover, 881-3860.
- FLUKE digital multimeter, model 8020A, w/instruction manual, \$95. Lucas, 292-2877.
- PING PONG table w/paddles, \$50; weight bench & weights, \$35. Von Riesemann, 884-7954.
- CAR TOP CARRIER, vinyl, size 3x4, fits midsize & full size auto, \$25 or offer. Lane, 884-4566.
- SANSUI TU-717 AM-FM tuner w/rack handles, noise cancellor, record tone, \$165; Kenwood KA-8100 integrated amp, 75 wt/ch, \$275. Ritchey, 298-6648.
- FOUR 4'x5' single hung aluminum windows w/screens, \$150. Boeck, 298-6495.
- GARAGE SALE, Oct. 16-17, 9 to 5, corner of Mackland & Tulane, 3326 Mackland NE. Bryant, 266-6166.
- WINDOW SCREENS, assorted sizes; bicycles: 3-sp lady's, boy's & girl's. Mora, 821-6759 after 6.
- HEATILATORS: one motorized, \$25; one passive, \$5. Miyoshi, 821-9118.
- RUGER 22LR/22WMR super single six, stainless, Bianchi holster, box & manual, \$160. Kessell, 266-2094.

- GAS RANGE, 30", semi-auto continuous cleaning oven, clock & timer, almond color, \$250. Newton, 296-2335.
- UTILITY CABINET, unfinished wood, 24x25x64, \$20. Young, 256-9158.
- GARAGE DOORS, 2 7x8 swingout, all hardware, \$40 ea.; 5-lamp dining room chandelier, amber, \$25. Keck, 822-1213.
- FIVE-hole Firebird grate w/blower, \$50. Stevenson, 242-7635.
- BEDROOM FURNITURE for a young girl: 3 base units, 2 hutches, night stand, yellow, \$300; King 4-B trombone with F trigger, \$400. Luna, 296-5123.
- FRIGIDAIRE, \$125, you pick up. Cooper, 268-0007.

### TRANSPORTATION

- '79 MG MIDGET convertible w/touring top, 21K miles, \$4000. Fenimore, 298-8052.
- '78 HONDA Twin Starr 185cc, 6000 miles, \$637. Jarrell, 293-9671.
- MOTOCROSS BIKE, Red-Line MK II, 6 mos. old, free-wheel & coaster break wheel, w/complete pads, \$150. Holmes, 292-0898.
- '76 TOYOTA Land Cruiser, 4-spd., 6-cyl., roll bar, PTO winch, \$4200. Nogle, 299-3863.
- '77 FORD Thunderbird, PS, PB, AC, CC, AM-FM stereo, tilt wheel, cloth upholstery, low mileage. Fay, 292-2856.
- '81 KAWASAKI 650, 3100 miles, \$2500. Casares, 877-0369.
- '73 MAZDA RX-2, 4-dr., new tires, extra engine, cash or trade for truck. Walters, 293-5381.
- DIRT BIKE, Moto-One, \$80. Norwood, 262-0073.
- BICYCLE, girl's 20", \$45. Diegle, 294-5565.
- '79 YAMAHA 750 special, brand new engine-transmission overhaul, windshield, backrest, luggage rack, crash bars, touring seat, \$2000. Quintana, 268-2513.
- '64 WILLYS Jeep Wagoneer w/Chevy 327 engine, \$800. Courtney, 864-3184 (Belen).
- '70 VW convertible, \$2500. Robertson, 293-5595.
- SAILBOAT, 14' Sunfish w/trailer, \$950. Maloney, 821-6661.
- '75 HONDA CB400F, 4-cyl., Yoshima header, low bars, rear sets, solo set, Pirellis, spare wheels, tires & more. Barnard, 831-4114.
- '75 HONDA CB 750, 900 miles on rebuilt engine, new tires, case guards, fairing, trunk, \$1200 or best offer. Dolce, 296-4033.
- '80 HONDA, 3500 miles, \$2600. Kruse, 898-5209 after 5.
- '60 NASH Metropolitan, 4-cyl., R&H, \$1800; Ford pickup SWB, 350 cc. Harrison, 883-5411 after 5.
- '64 BUICK Wildcat, 2-dr. HT, PS, PB, AT, cassette AM/FM stereo. Lang, 884-5288.
- '81 VW Vanagon camper, beige, AC, AM/FM stereo cassette, low mileage, negotiable. Alvarez, 821-6817 after 4.

- '77 OLDSMOBILE Starfire GT hatchback, 6-cyl., AT, AM/FM-8TK, red, 47K miles, \$2400. Young, 256-0062 after 5 or 266-9258.
- '77 MONZA Towne Coupe, AC, AM-FM cassette, rear defogger, fold-down rear seat, \$2850. Gaede, 821-2125.
- '79 VW Scirocco, sunroof, stereo, \$4200. Harrell, 292-6850.

### REAL ESTATE

- 14 x 72 MH, 3-bdr., 2 bath, \$5000 down, assume low interest loan. Vallejios, 821-8286.
- 3-BDR., 1 1/2 bath, pitched roof, garage, new carpet, tile & paint; fenced back yard, cooling system, \$39,000, Valley Gardens. Dolan, 294-0451.
- LAND: lg. lot, on-site hookup, Belen area. Chavez, 255-2306 after 5 or 864-4428 daytime.
- TWO separate lots in Angel Fire, NM; ready to build. Monette, 345-0404.
- 3-BDR. 1 1/2 bath, garage, wood fence back, chain link, front, landscaped, \$39,000. Draper, 877-2802.
- 1850 SQ. FT. 3-bdr., 2 bath, NE area (Eastridge), oversize lot, end of cul-de-sac, assumable 8 1/4%, financing available, \$80s. Reif, 299-2665.

### WANTED

- FENCE CHARGER, electric, plug-in, 110 volts. Shunny, 265-1620.
- ROOMMATE, own partially furnished room(s), full bath, no pets, 1 child\* OK, \$175/\$225\* plus 1/2 utilities. Levin, 299-0891.
- JACOBSEN lawn mower suitable for rebuilding; a small, lightweight model is needed. Simmons, 298-8510.
- DESPERATELY need to buy, rent, or borrow 7 pairs of little red plastic snowshoes! Davis, 281-1248.
- SMALL ceramic kiln. Meadows, 883-4880.
- USE OF Cannon TL camera owner's manual for one day. Argyle, 881-3993.
- HOUSE for family of 4 to rent for approx. 3 months, furnished or unfurnished, starting Nov. 1. Gauster, SNLL, 532-2973.
- CAST IRON exhaust manifold for AMC 6-258 engine. Baxter, 344-7601.
- BUY or borrow fencing equipment: foil, mask, fencing jacket, etc. Mogford, 898-1416.
- GOOD HOME for 1 1/2-year-old female Doberman Pinscher. Hesch, 294-3298.
- SOLID baby crib in good condition w/wo mattress, reasonably priced. Chang, 255-4002.
- A 12 film magazine for 500 c/m Hasselblad camera. Luette, 292-5328.

### WORK WANTED

- PAINTING, UNM Student Workshop, references, estimates. Peter Shunny, 266-0266.

**Coronado Club Activities**

# Prime Rib Tonight; Jug Band Tomorrow

*HAPPY HOUR TONIGHT* sees a super spread of prime rib on the buffet. It's called a "cattlemen's cut" and weighs about 14 oz. Add a baked potato, vegetable, salad bar and dessert and it's a super buy at \$8.95. Kids 12 and under pay half price. Just so the calories don't stay with you, a group called Borderline is on the bandstand, and the word we get (from Caravan East) is that these guys play a swinging country and western style that is *danceable*. At Happy Hour next Friday, Oct. 22, Voyager plays for dancing and the buffet is a seafood fiesta or "landlubber" steaks.

*TOMORROW* the Club showcases the Watermelon Mountain Jug Band, a show group that's fun to listen to, fun to dance to. The buffet is an old-fashioned roast beef spread with the works. Call *right now* about reservations—265-6791.

*BOB MANHART* (3151) heads the new board of directors as president. Jack Mortley (7521) is vice president, Keith Mote (7483) is secretary, and Eddie Gallegos (0132) is treasurer.

Don Hosterman (9372) chairs the special events committee; Shirley McKenzie (2432) heads travel; Charlie Salazar (7418), special interest groups; Phyllis Sanchez (3510), membership; Ernie Montoya (7471), pool, patio and recreation; Sharon Kurtz (3142), food and entertainment; Jack Mortley, bar; Keith Mote, capital improvements; and Don Graham (3162), publicity.

The board welcomes suggestions from members at all times.



CORONADO CLUB MANAGER Pat Corcoran and Chef Hank Perez preview the new "Triple S" luncheon service starting at the Club on Monday, Oct. 18. Each weekday, steamship round of beef will top the sandwich selection, which also includes five other choices plus a half-dozen choices of cheeses and types of bread, five choices for soup, and an all-you-can-eat, build-your-own salad bar. Lunch will be served from 11:30 until 1:30.

*TRAVEL*—Scheduled trips include *Mexican Pacific Coast Cruise*, Oct. 23-30, from \$789; *Canyon de Chelly*, Oct. 30-31, \$82; *Mazatlan*, Nov. 1-8 or Nov. 8-15, \$332; *Las Vegas*, by bus Nov. 25-28, \$127, or Dec. 26-29, \$105; or by air Nov. 26-28, \$162, or Dec. 26-28, \$138.

See travel director Shirley McKenzie in the lobby tonight between 5 and 6 to talk travel.

*LOOKING AHEAD* a couple of weeks, now is the time to think about the adult Halloween costume party on Friday, Oct. 29, with prizes, a super buffet, and entertainment by Spinning Wheel. Reservations are needed for this one—call 265-6791. Then the kids have their Halloween party the next day, Oct. 30, starting at 6 p.m. with more prizes, games, films, bags of treats, and the Club's traditional "House of Horrors." Admission is \$1 per person and includes a book of game tickets for the little ones.

*CORONADO SKI CLUB* meets Tuesday, Oct. 19, to get the word on Utah skiing with movies and door prizes. Social hour starts at 7. The word on the Lake Tahoe ski trip is that it's been rescheduled to March 1-7. Skiers will fly into Reno for five days of skiing and six nights of shows, etc., for \$470 per person. Call Milo Navratil (7584) on 4-1046 for details.

Equipment clinic for all skiers is set for Tuesday, Nov. 9.

*REDONDO ROUND DANCERS* meet Thursdays for class at 7 p.m., club dancing at 8 p.m. Visitors are welcome. Call Charlie Clendenin (2611), 4-2119, for more info.

*THE WOLFPACK* journeys to El Paso Nov. 6-7 for the Lobo-Miners game. There may still be room on the bus. Call Ken Deller (7246), 4-6776, *right now* (today is the deadline) to sign up.



"Hmm—according to my data, comes the big earthquake and everything east of the San Andreas Fault is going to drop off into the Atlantic."