



LAB NEWS

VOL. 35, NO. 15

JULY 22, 1983



REFLECTED in the placid crystal waters of Lake Tonopah is magnificent Cactus Peak, haven for winter sports enthusiasts. Sounds good, but it's actually a couple of inches of spring runoff from the mountain covering a (usually) dry lake bed that's a test drop area at Sandia's Tonopah Test Range. (Photo by Diana Root, EG&G)

Cook Discusses Reorganization

New Energy, Defense Vice-Presidencies Formed

LAB NEWS asked Tom Cook (20) to comment on the rationale behind the July 1 reorganization. Tom is the executive vice-president over all of the organizations affected and (with George Dacey, 1, and Al Narath, 10) a member of Sandia's Board of Directors as well.

A key part of the reorganization was the establishment of a new Energy Programs vice-presidency under Everet Beckner (6000).

"The Board recognized that Sandia needs a vice-president who could concentrate on representing our energy programs on the Washington level," says Tom. "DOE has five assistant secretaries who authorize funding for various pieces of our energy programs, and it makes sense to have an officer of the company responsible only for these programs."

The Energy Programs organization will include solar and geo energy, waste management and transportation, and nuclear fuel cycle programs. Together they account for some \$186 million in funding.

"And support for such programs seems to have stabilized now," continues Tom. "The Congress and the administration do want to support high risk, long-range research with a high potential payoff. We now project relatively stable funding for such programs on a continuing, long-term basis."

Support for studies in the transportation of nuclear wastes will, the Board believes, become increasingly important in the future. "It's an area likely to become a target for anti-nuclear activities," Tom points out. "Sandia can play a key role here by providing solid answers to the technical questions likely to be raised."

The reorganization also grouped the weapons programs into a separate vice-presidency, Defense Programs 5000, under Orval Jones. The group now includes instrumentation systems as well as weapon development and nuclear security systems.

The second new vice-president appointed, Bob Peurifoy, will head Technical Support 7000, the same organization that Orval

headed but with the design information center added and instrumentation systems subtracted. "This is a nice grouping of technical support functions, mainly those that support the weapons programs," Tom notes. "The shift will allow Sandia to apply Bob Peurifoy's expertise in weapon development to the 'other side' of weapons — testing, safety, reliability, stockpile surveillance, and the like."

So the reorganization reflects a more precise focusing in both defense and energy programs but no new initiatives — at this point. "There will be more changes," Tom concludes. "For one thing, we will examine any new defense initiatives that emerge from the administration's current look at space weaponry and will select a limited number of high technology areas for increased emphasis here."

"For another thing, we're now facing 500 or so separations from the company each year, many of them retirements, including several each year at top levels of the company. Yes, there will be more changes."

Antojitos

Adios, Hawthorne Works/Effect--Anyone who has been exposed to industrial psychology knows about "the Hawthorne effect." Growing out of efficiency studies conducted at WE's Hawthorne Works in the 1920s, the term refers to the fact that workers there increased their productivity every time the lighting levels in the plant were raised. Then the lighting levels were reduced and--surprise--productivity increased again. The obvious moral: Workers like to get attention. At least that's the way several reputable textbooks cover it. Turns out, however, that there's a defect in the effect--the data collected by the original researchers do not support the premise that productivity rises whenever working conditions are changed. Several unexamined variables could have caused (and likely did cause) the improvement.

And another Old Wives'/Husbands' Tale--more precisely, another Old Psychologists' Tale--bites the dust. One cannot but wonder how many other concepts on which we build decisions are equally flawed. How many things we know are so aren't so at all?

So much for philosophy. Now for fact--a sad one: The Hawthorne Works itself is biting the dust too. The oldest of WE manufacturing plants, Hawthorne dates back to 1902. It is being phased out "to reduce overall costs of eliminating excess manufacturing capability and improving plant utilization." In short, a second cousin of Sandia's on its mother's side is near demise.

* * *

Back of the Badges, Again--Last issue I commented on the typographical peccadillos perpetrated on our badges. But I momentarily overlooked the obvious--and the ominous--message in the same location. That's the "bar code" along the bottom of the badge. Like the codes on your cereal box, that code will undoubtedly be used to calculate instantaneously everything Sandia needs to know about you--where you are at any given moment (gates and doors will open only after you insert your badge into a reader that will replace each doorknob), what you're working on (every project will be coded by case number and merged with the bar code data), and how you feel about what you're doing (as determined by the force with which you shove your badge into the slot on the readers). On payday then, the Computer will assimilate all these data, calculate your precise worth to the Company for the pay period, and issue a check accordingly. No fuss, no muss, no performance evaluation reviews. And it's not even 1984 yet!

●BH

Lo que no se puede remediar se ha de aguantar. (What can't be cured must be endured.)



A man in Moscow was arrested by the KGB after running through the streets shouting, "The whole world is suffering because of one man!"

Asked by the interrogator who he had in mind, he replied, "Hitler, naturally," and was set free. On the way to the door he paused and then asked, "Excuse me, but whom did *you* have in mind?"

Collected by Zhanna Dolgoplova in *Russia Dies Laughing*



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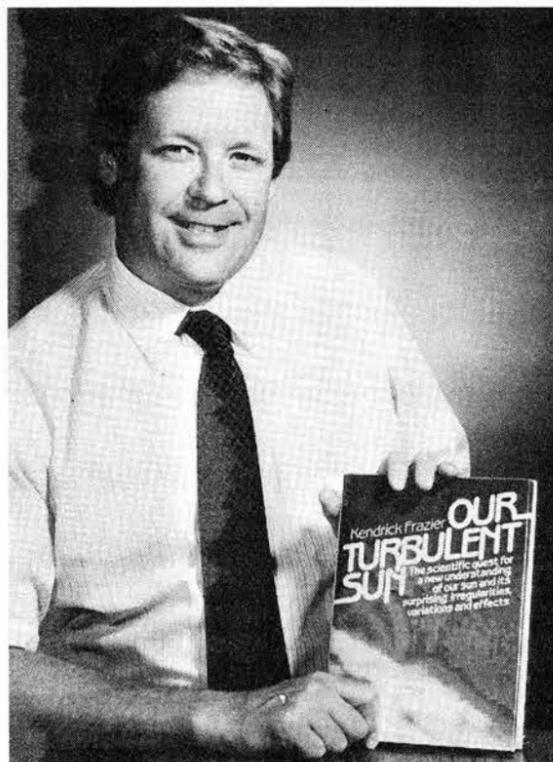
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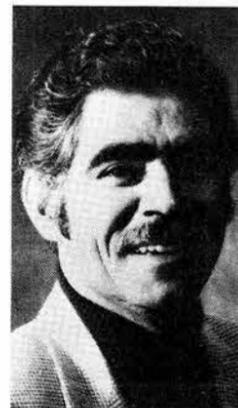
He's 'Closer to the Sun' Than Most



OUR TURBULENT SUN, a book written by Ken Frazier (3161), has been named as one of the 12 best nontechnical astronomy books published in 1982.

Cultural Awareness Colloquia

Noted New Mexico Author to Speak



Rudolfo Anaya presented under the auspices of Department 3510.

Next month, Sandia initiates a new series of colloquia on the history and cultures of New Mexico and the Southwest. The speakers will be persons well known in their respective areas of expertise — history, archaeology, literature, and anthropology. The colloquia will be pre-

sented under the auspices of Department 3510. Rudolfo Anaya, prominent local author, will present the first colloquium on August 5. He will speak on New Mexico Hispanic culture and its interaction with the corporate/technical world. Anaya has published a number of acclaimed works including *Bless Me, Ultima*, *Heart of Aztlán*, and *Tortuga*, as well as many short stories and plays. He is an associate professor of English at UNM.

The colloquium will be from 11 to 12 noon in Bldg. 815.

Ofte In For Clark

Tom Clark, former deputy manager at Albuquerque Operations Office, has been named manager of the Nevada Operations Office. Replacing Tom in the deputy manager slot is Don Ofte, who has been assistant manager for development and production since early 1982.

Congratulations

Greg Hinkel (7521) and Vicki Turner married in Alexandria, Ky., June 4.

Science writer Ken Frazier joined the staff of the Public Information Division 3161 in April. He has just learned that his book, *Our Turbulent Sun* (1982, Prentice Hall, Inc.), was selected by *Mercury* magazine for its "Books of the Year," as one of the 12 best nontechnical astronomy books of 1982. *Mercury* is published by the Astronomical Society of the Pacific.

Before joining the Labs, Ken was editor of *Science News* in Washington, D.C., from 1971-77. Deciding to return to the Southwest (Ken and his wife Ruth are both from Colorado), the Fraziers settled in Albuquerque, and Ken began his career in freelance science writing. His first book, *The Violent Face of Nature*, was published in 1979 by the William Morrow Company.

Ken is working on a third book about Chaco Canyon for the W.W. Norton Company. He's also editor of the quarterly journal *Skeptical Inquirer*. And, "somewhere down the road" he says, he'll be writing a book for the Time-Life Books Planet Earth Series.

Hydrogen, Oxygen Detected in Flames

Using a direct optical technique, John Goldsmith of Applied Physics Division 8342 has detected hydrogen atoms in a flame for the first time. He also reports one of the rare instances of optical detection of atomic oxygen.

Hydrogen and oxygen atoms are a type of radical — often unstable, very reactive species that exist in flames and the upper atmosphere. Their concentration in flames is low — well below one percent. However, they play important roles in combustion processes. So detecting them is necessary for a thorough understanding of combustion chemistry. It takes some quite sensitive techniques.

John applied a method called resonant multiphoton optogalvanic spectroscopy to detect these trace species. He points out that meeting such difficulties by developing new analytical techniques is an important aspect of combustion diagnostics programs. "When I was looking for a contribution to make to combustion studies, I realized that atomic hydrogen had not been detected optically in flames — something for which a real need existed.

"Laser-based methods are extremely useful for such studies because they are non-intrusive," says John. "By selecting the proper wavelength, we can study single species. Ideally, one technique would be applicable to all species, but in practice this is not the case. The resonance fluorescence that is more or less the standard technique for detecting minor species won't work for atomic hydrogen and oxygen because these atoms absorb light only in the vacuum ultraviolet portion of the spectrum, where other flame gases absorb the light before it can be detected. I applied resonant multiphoton optogalvanic spectroscopy to the problem. And it worked."

Using this technique, John excites an atom by hitting it with two ultraviolet photons. The excited atom is then ionized by absorbing one more photon, and the resulting ion-electron pairs are detected electrically with probes mounted in or near the flame. The change in the electrical current is related to the amount of hydrogen or oxygen originally present in the flame.

"My work provides more input for combustion studies by providing data for verifying flame models," says John. "These models are another step toward theoretical understanding of combustion processes."



BEETLE JUICE TO GO!

The last supernova in our part of the galaxy occurred some 300 years ago in the constellation Cassiopeia. The remnant of this stellar explosion, Called Cas A, lies 9,000 light-years from Earth and is one of the loudest radio sources outside the solar system. Examining Cas A's stellar debris helps astronomers identify stars likely to explode in the future. At least one familiar star — Betelgeuse — is a very good candidate. . . . The bright red star that marks Orion's right shoulder, Betelgeuse is about 15 to 30 times the mass of the Sun, and the fate of such massive stars is probably to become Cas A-type supernovae. . . . When will it happen? So far, no one can say. When Betelgeuse does explode, though, it will become a point source of illumination brighter than the Full Moon and probably visible during the day. Strangely, though, there are no historical records of Cas A's detonation — no one on Earth seems to have observed it. Dust produced by the star and dust lying in the 9,000 light-years between Cas A and Earth probably made it too dim to notice. But Betelgeuse is only 520 light-years distant — so even if "Supernova Orionis" is fainter than expected, it will still be quite a show.

— Astronomy

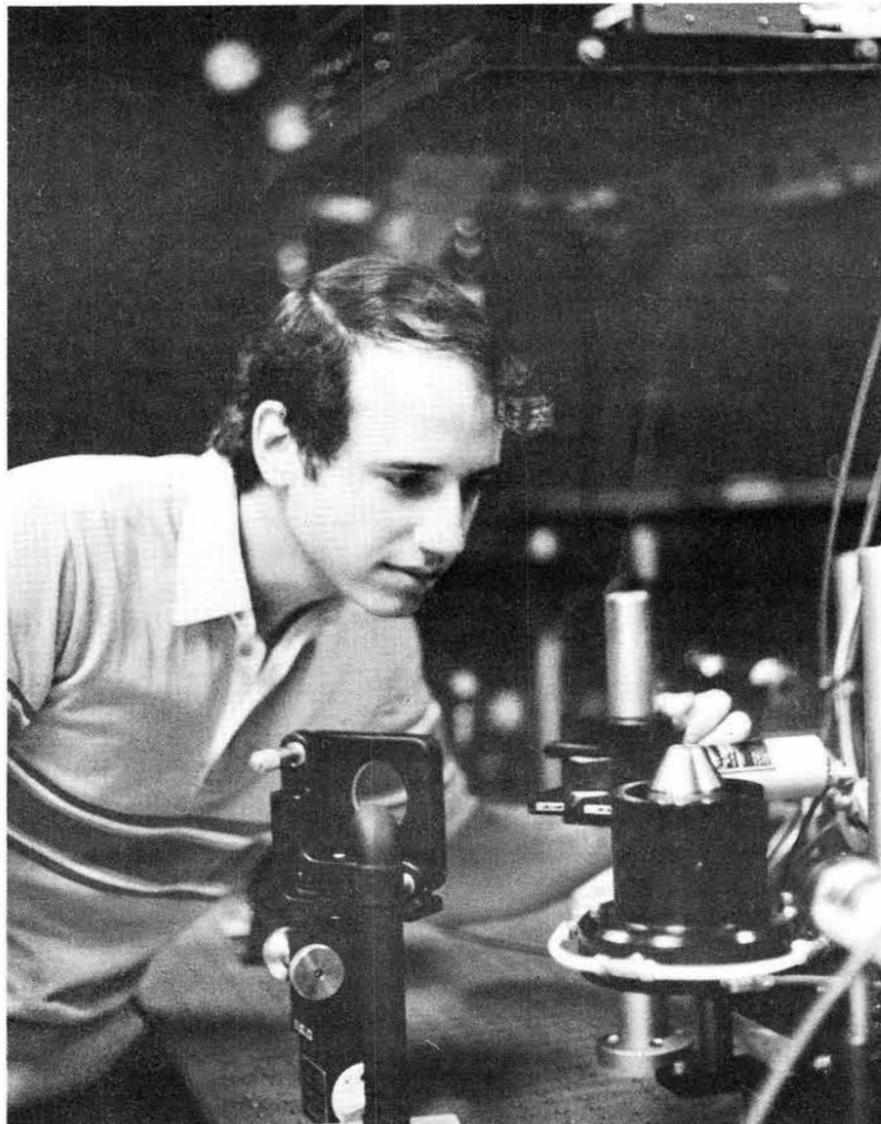


SANDIA LIVERMORE NEWS

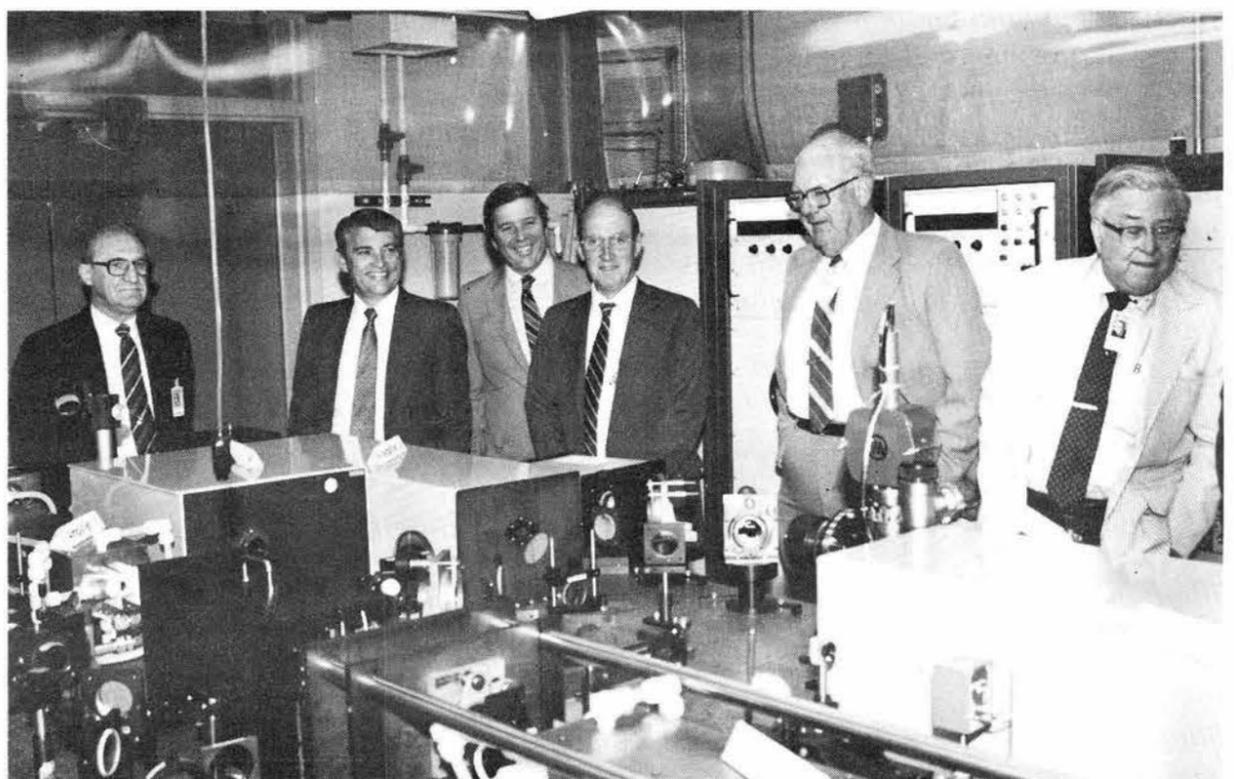
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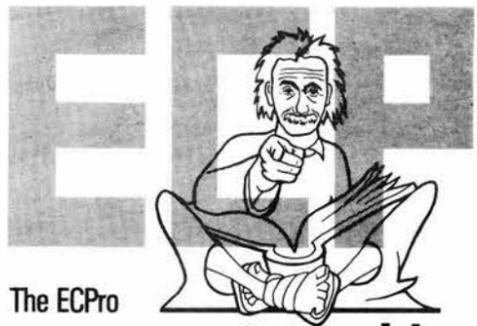
JULY 22, 1983



HYDROGEN atoms have been detected in a flame, for the first time, by John Goldsmith (8342). The same direct optical technique, resonant multiphoton optogalvanic spectroscopy, was also used to detect oxygen atoms. John's work provides data for verifying flame models used in understanding combustion processes.



SANDIA'S BOARD OF DIRECTORS met at Livermore (for the first time since 1979) last month. Shown here on a tour of the Combustion Research Facility, are (from left) Donald Procknow, President, Western Electric; newly elected Thomas Thomsen, President of the Technology Systems Group, WE; Frank Heffron, Executive Vice-President, Bell Labs; Ian Ross, President, Bell Labs; Sandia President George Dacey; and George Cook, Vice-President and General Counsel, WE. Other Board members are Philip Hogin, Executive Vice-President, WE; Al Narath (10); and Tom Cook (20). The three Sandians on the Board provided an overview of the Labs and a look at current programs and future trends. The Board also heard presentations on Sandia Livermore by Dick Claassen (8000), gas handling by Leo Gutierrez (8400), and future weapon concepts by John Vitko (8328).



The ECP

every cent provides

The Heart Association will "jump rope" on Aug. 3 from 11:15 to 1 p.m. in the lobby of Bldg. 802. You'll be able to jump rope and then have your heart rate measured. Literature will be available on the benefits to the heart of regular exercise. This presentation is another in the series of the Agency Awareness Program.

Supervisory Appointments

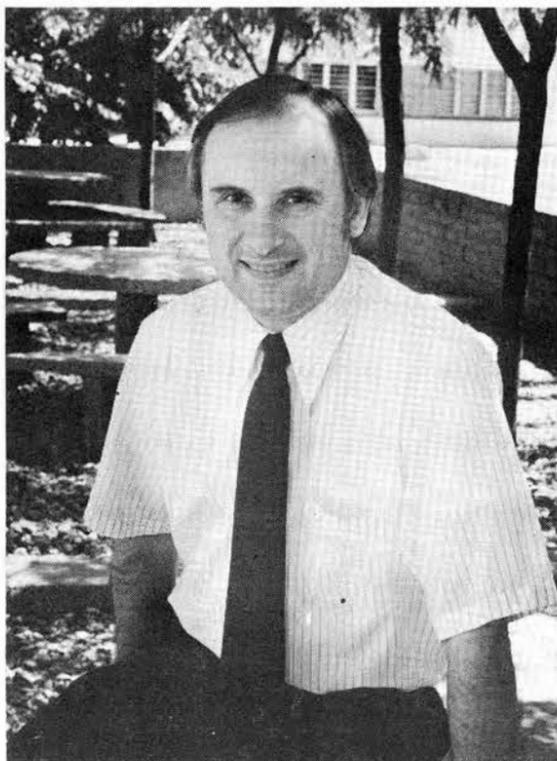
RON RODEMAN to supervisor of Climatic, Centrifuge, and Devices Testing Division 7543, effective July 16.

Since joining Sandia in 1967 in the engineering analyses department, Ron has worked primarily with structural dynamics analyses for various weapons programs and energy systems.

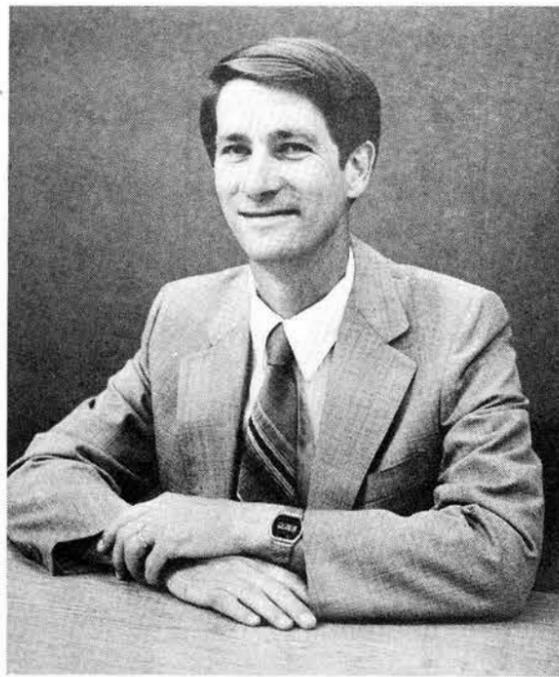
He received his BS and MS in ME from Colorado State University. In 1972 he was selected to participate in the Labs' Doctoral Study Program; he received his PhD from Purdue, also in ME, in 1974. Ron is a member of ASME and is a registered professional engineer in New Mexico. His hobbies include golfing, jogging, and restoring old English cars. Ron and his wife Lyn have three children and live in NE Albuquerque.

JIM RENKEN to manager of Radiation Effects Department 2320, effective July 16.

Jim joined a nuclear weapons effects group at Sandia in 1964 and three years later was promoted to supervisor of the organization — calculational physics division.



JIM RENKEN (2320)



VIRGIL DUGAN (6200)



DICK LYNCH (6300)

Two Directors Named

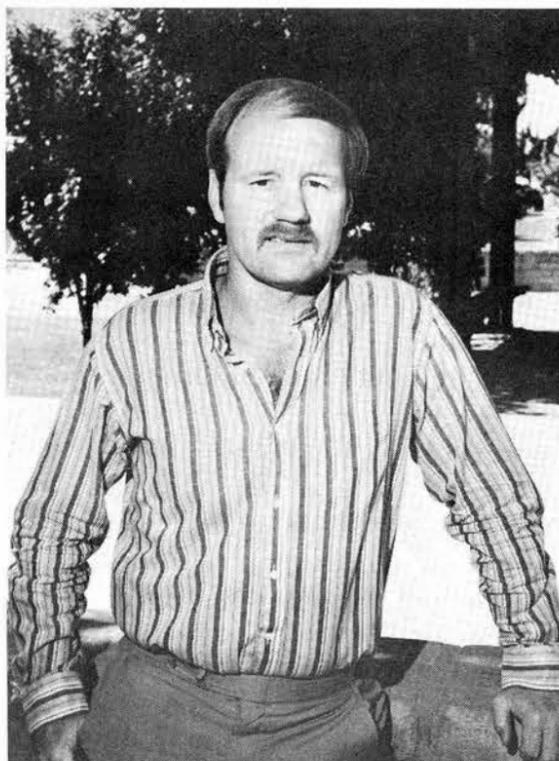
Following the recent reorganization that created two new vice-presidencies, promotions of two new directors were announced, effective July 16.

Dick Lynch was promoted to Director of Waste Management and Transportation 6300 and Virgil Dugan was promoted to Director of Solar and Geo Energy 6200.

Dick joined Sandia in 1966 as a member of the technical staff in a chemical physics research group. A few months later, he was

He has continued to work in the nuclear weapon development directorate as supervisor of hostile environments division and, most recently, as head of Radiation Application Division 2321.

He earned his BS and MS in physics from Ohio State University and his PhD, also in physics, from the California Institute of Technology. Before coming to Sandia, he was a first lieutenant in the Signal Corps, assigned to Picatinny Arsenal. Jim is a member of the American Physical Society and the American Nuclear Society. He enjoys personal computing, investing, and music. Jim and his wife Patricia have three children, with one still at home. They live in the NE heights.



RON RODEMAN (7543)

granted a leave of absence for military service with the Army Signal Corps. Dick was the Army Electronics Command Liaison Officer at Wright-Patterson AFB in 1966-68. He returned to the Labs and was promoted in 1971 to head the applied materials science division, which later evolved into the chemical technology division. In 1976, he was named manager of the waste management and environmental programs department. Until his current promotion, Dick was manager of the Nevada Nuclear Waste Storage Investigations Project Department 6310.

Dick received his BS in chemical engineering from the University of California at Berkeley and his MS and PhD, also in chemical engineering, from the University of Illinois. He is a member of the American Association for the Advancement of Science, the American Physical Society, and the American Institute of Chemical Engineers.

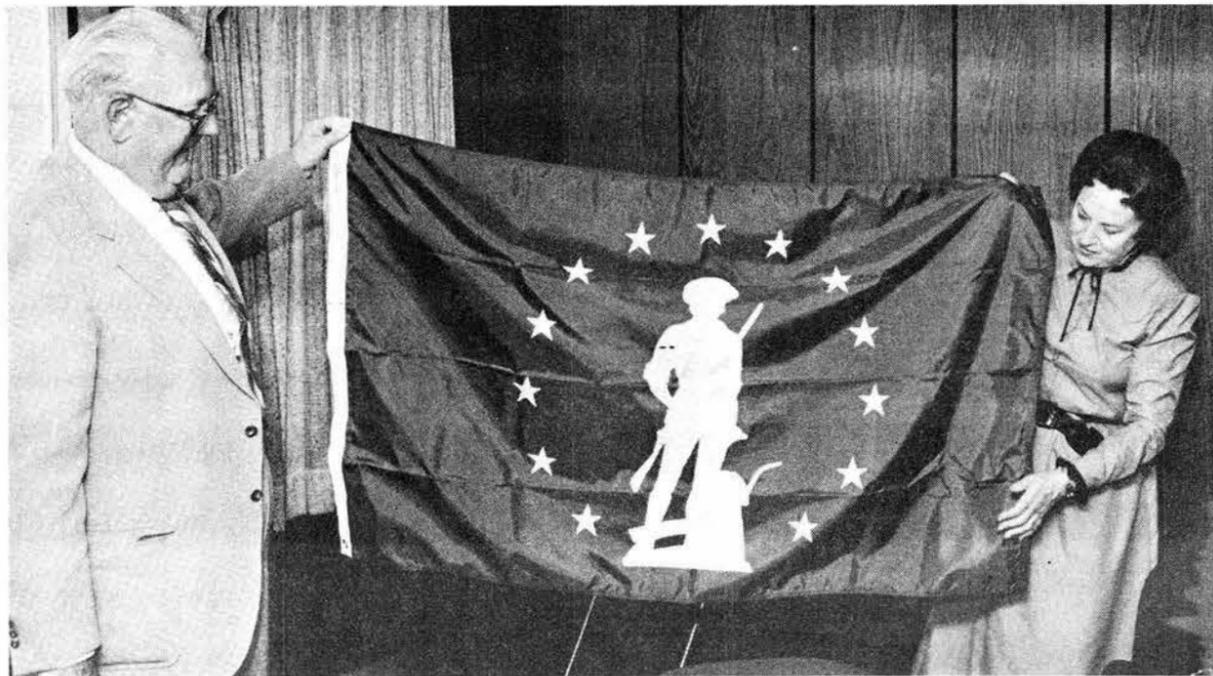
He enjoys skiing with his family, hunting, fishing, and activities of his church. Dick and his wife Myra, a local attorney, have three children. They live in NE Albuquerque.

Virg joined Sandia in 1964 as a member of the technical staff in the advanced data systems department. He later worked in planetary quarantine, biosystems research, and systems studies organizations. He was promoted to supervisor of Systems Studies Division in December 1971 and was named manager of the Systems Analysis Department in 1975. He's also headed the Solar Energy Projects Department and, most recently, Geo Energy Technology Department I 6250.

Virg received his BS in EE from Mississippi State University, his MS in EE from UNM under Sandia's Technical Development Program, and his PhD in EE from MSU. He is a member of IEEE.

Off the job, Virg enjoys both participant sports — tennis, backpacking, jogging — and spectator — football and basketball are favorites. He is active in his church. His systems orientation is the basis for a unique "mental hobby" — devising causal models of the physiological chemistry of humans.

Virg and his wife Sandy have one daughter and live in NE Albuquerque.



MINUTEMAN FLAG, symbol of U.S. Savings Bonds, was presented to Sandia recently by Evelyn Oberg, area representative, Savings Bond Division, U.S. Treasury, for employee participation of 94 percent in the Savings Bond program achieved during the recent bond drive. In addition to an almost seven percent increase in participation, employees increased the dollar amount invested in bonds from \$1,365,000 annually to \$1,977,000. President George Dacey accepted the flag for employees, commenting that the new market-based rates of return for bonds held five years or more are "a more attractive investment than ever."

Take Note

Shirley Dean (11) has been named Business Associate of the Year by the La Luz Chapter of the American Business Women's Association. This annual award, based on accomplishments in business life, replaces the "Boss of the Year" award from ABWA. "I'm honored and pleased with the award because it was given by my peers," Shirley says.

* * *

"Living Through Cancer" is the title of an educational conference that will explore the various ways people with cancer can supplement medical care psychologically in order to better respond to treatment. While not taking the place of traditional medical care, the self-help methods described at the conference will help participants adjust to having cancer and will aid in their living fully and responsibly. Further, if need be, participants will learn how to approach death with peace of mind. The conference is offered by a group called Living Through Cancer and takes place Saturday, August 6,

from 9 to 4:30, at the Valley Presbyterian Church, 1801 Montano Rd. NW. Cost is \$6 and lunch is provided. More information from 897-0748 or 884-7022.

* * *

The South 14 Bookstand — *Albuquerque, A Narrative History* by Marc Simmons (UNM Press) was published last year and is now available in paperback cover. It conveys in its 443 pages almost more detail about our fair city than a body would want to know. Fortunately, Simmons is a graceful writer and does succeed in making this not only narrative but interesting narrative. One tale is about Clyde Tingley's drive into the city of Las Vegas and arrest by a police officer for speeding. When Clyde and the officer arrived at the police station, Clyde apparently decided he'd had enough and engaged in fisticuffs with the officer. It cost him a few hours in the pokey and a \$25 fine. *Albuquerque* starts at the beginnings, back in the late 1500s, and takes us to this decade. It's a good story. In paperback, \$17.50, at LAB NEWS, Bldg. 814.

SIGNING the largest-ever (\$6.1 million) contract between Sandia and a small minority business is Thomas Kirk, president of Kirk-Mayer, Inc. The Albuquerque district office of the Los Angeles-based company will, as a result of the agreement, provide and manage an operational service group (65-70 people) to support the operation of Sandia's Center for Radiation-hardened Microelectronics (LAB NEWS, June 10, 1983). With Kirk are Dick Russell, director of Purchasing and Materials Management 3700, and (standing) Don Dugger, district manager of Kirk-Mayer.



Events Calendar

July 23-24 — Bike Tour: ride from Albuquerque to Santa Fe via NM 14, return Sunday, on same route or tour Santa Fe and return by bus. Overnight in Santa Fe, sag wagon, fee; NM Touring Society, 294-4038 or 883-1485.

July 24 — NM Buckskin Association and All Breed Double Judge Horse Show, NM Horse Complex, premiums and information 869-2942.

July 24-30 — Southwest Story Fest Extravaganza: story-telling events and entertainment, various locations throughout Old Town, 243-3696.

July 29-Aug. 31 — Adobe Theatre in Corrales presents "Holy Ghost," 8:15 p.m., 898-3323.

July 30 — Chamber Orchestra of Albuquerque, Hilary Davan Wetton, guest conductor; music of Elgar, Holst, Handel, and Mozart; 8:15 p.m., Albuquerque Little Theatre, 247-0262.

Aug. 5-6 — New Mexico Barbershop Concert, KiMo, 243-0591.

Aug. 5-7 — Albuquerque Children's Theatre presents "A Most Reluctant Dragon," 10 a.m. Fri., 1:30 p.m. Sat., 1:30 & 3:30 p.m. Sun., Popejoy.

Aug. 6 — Dedication of Phil Tollefsrud (former Sandian) Memorial Sculpture and ceremony in honor of the acquisition by the city of the Elena Gallegos Land Grant. The area, normally closed to the public, will be open from 8:30 until 2 p.m.; bring a picnic lunch. Turn east off far north Tramway and follow signs; dedication ceremony begins at 9.

Retiree Deaths

(April - June)

Margery Poetzel (74)	April 3
Richard McKee (48)	April 12
James McDowell (97)	April 18
Herbert Johnston (74)	April 20
Thomas Lucero (79)	April 23
Augustine Apodaca (68)	April 28
Henry Strege (86)	April 29
Lloyd Hungate (65)	May 1
Arnold Dulz (71)	May 14
Maurice Taylor (80)	May 23
Chester Laskowski (70)	May 29
Marion Williams (70)	May 31
Laurence Hall (77)	June 12
Charles Bray (64)	June 14
Milton Meek (84)	June 23



Death

Bill Vollendorf of Engineering Projects Division 7133 died July 12 after a long illness. He was 58.

He had worked at Sandia since September 1966.

Survivors include his wife and six children.

Fun & Games

Running — Start just north of UNM's duck pond at 8 a.m. on Sunday, July 24. Run either 1 mile or 5 km. You'll be participating in the People for Kids Run to raise money for playground equipment at Child's Play Daycare. Preregistration fees are \$4 for people 11 years old and under or \$5 for those 12 and up; on site registration will be \$5 and \$6. Incentives include 1st, 2nd, and 3rd place awards in each category, gift certificates, free refreshments after the run, and free T-shirts for the first 350 registrants. For more information, contact Mike Moulton (9211) at 293-0373 after 5.

Aerobic Workout — There's been a slight change in the program. Classes now will start on Tuesday, July 26th at 9:15 a.m. and will be held in the Coronado Club ballroom. (If enough of you participate, it will be expanded to Thursdays as well.) Cost is \$2.50 per session or you can buy a series of class tickets and save money. It's a "back to basics" fitness program — in 30 minutes you can get fit, firm, trim, and full of youthful energy. More information from Aerobic Dance, Inc. at 293-0316.

Wanted — Qualified welder to teach classes in welding at the Base Auto Hobby Center. Contact Sherryl Zuk after 1 p.m. Tuesday - Friday on 844-0222.

Holography — Kirtland Arts & Crafts Center is considering a holographic program. People interested in taking a course in holography or helping in the development should contact the center director, Sherryl Zuk on 844-0222 after 1 Tuesday - Friday or Saturday 9 - 5. A hologram is a recording on a light-sensitive medium of light waves that reflect from an object illuminated with laser light, forming in complete and full dimension an image of that original object — a sort of three-dimensional photography.

More Running — We goofed. The Fun Runs staged on Saturdays by the City Parks and Recreation Dept. begin at 8 a.m., not 8 p.m. To those of you spending your Saturday nights waiting at San Gabriel Park, we sincerely apologize.

**

Soccer — S.E.R.P. is offering a week-long soccer clinic starting July 25 from 9 to noon each day at UNM's Johnson Field. Instructor is Klaus Weber, who has played and coached soccer for over 25 years. Cost is \$25 in advance. The clinic will cover instruction in skills, techniques, tactics, and physical conditioning. Ages six and up are eligible. Call 266-7557 for signup. All participants will receive a free S.E.R.P. soccer T-shirt.

Sympathy

To Bill Love (7523) on the death of his son in Albuquerque, July 1.

To Martin Gonzales (3618) on the death of his brother in Albuquerque, July 8.

To Billie Pierce (7556) on the death of his brother in South San Francisco, July 15.

Colloquium

Astronaut Addresses Assembly

No one in the audience asked NASA astronaut Bonnie Dunbar when it would be her turn to go into space, and she didn't volunteer the information. But she did provide some fascinating insights into the space shuttle transportation system before emphasizing her special interest — materials processing in space.

The concept of a reusable space vehicle dates back to the time of the first manned moon landing in 1969. But expendable boosters are still in use at a cost of almost \$30 million per shot.

Dunbar described the shuttle's flight deck and instrumentation: "All data information is processed through five IBM computers and displayed on three CRTs," she said. "The original design called for five CRTs, but military test pilots weren't used to them so some of the data had to be sent directly to the instruments. In future spacecraft, we'll go back to the original design of five CRTs."

Thirty thousand tiles cover the space vehicle to protect it from the heat of re-entry; each one is specially constructed of 99.9 percent pure silica fiber, and no two are alike. The white tiles withstand temperatures of up to 1300°F while the black tiles that cover the spacecraft's bottom resist up to 2300°F. "We've learned a lot in the last three years about how to cover a vehicle," said Dunbar. "Thermally, it's behaving beautifully."

Beginning with Ham, the orbiting chimp of the 1950s, Dunbar described the evolution of crew members. "The present shuttle is not so much a test vehicle as an orbiting platform for scientific experiments. The crews will increasingly consist of mission specialists with pilot astronauts for launch and landing, although the latter will also participate in on-orbit activity."

During their first year, astronauts train entirely in the classroom, learning about software and attending about 20 lectures on different sciences, especially geology. They experience weightlessness in KC-135 aircraft during 30-second dives; these flights are also used for materials experiments.

Materials Processing

"We're entering the era of space industrialization," said Dunbar. "The space environment offers the advantages of weightlessness and an unparalleled vacuum. Zero gravity affords buoyancy, no thermal convection, containerless and noncontact processing, and an environment in which molecular forces are primary. We can grow bigger and better crystals — something in which the Japanese are very interested, incidentally. They're holding discussions with NASA about participating in a future lab and sending a mission specialist."

An upcoming flight in the fall will carry a European space lab with 32 experiments in materials processing. It will have the largest crew yet — six people, including a German mission specialist, the first non-American to fly in a U.S. space vehicle. Dunbar added that SOYUZ, the Soviet space lab, has a materials processing facility and that the Russians have been processing materials and returning them to Earth for five years.

"We don't have enough flights scheduled now to accommodate all commercial users," said Dunbar, "even though the third orbiter is nearing completion. Flight Seven launched German and Indonesian satellites — the latter brought the 13,000 islands of that country under one communications system for the first time.

"NASA is planning an eight-person space station by 1990 for which no new technology is required. My input was to urge that a materials lab be designed for it."

Dunbar brought along an extra treat — dramatic films of the seventh mission. The audience saw views of the German satellite being placed into orbit and its subsequent retrieval by the Canadian-built manipulator arm. Also shown were the first pictures of a shuttle in space, taken by cameras on the German satellite. And all this while flying at 18,000 mph.

When Bonnie Dunbar is finally in space and sending messages back to us surface folks, the many Sandians who attended the colloquium will feel a more personal connection with her. *Ad astra, Bonnie!*



Retiring

Don Hosterman (9322), Art Castillo (3741), and Joe Gregory (7213).

Sandians' Children Win Academic Awards

Editor's Note: LAB NEWS doesn't publish stories on the accomplishments of Sandians' children. But we make an exception for scholastic achievements on the national level, achievements that, in the current cases, were honored by N.M. Representative Manuel Lujan, who read the names of the scholars into the Congressional Record.

Paula Walker

Years of rising at 5 a.m. to practice the violin before school paid off recently for Paula Walker, daughter of Hugh (7523) and Cheryl-Lynn Walker. Out of nearly 2.8 million graduating high school seniors across the nation this year, Paula was selected as one of 141 Presidential Scholars by the U.S. Department of Education Commission on Presidential Scholars, in concurrence with the President of the United States. As one of two students to walk away from Arts Recognition and Talent Search auditions in Miami with awards in two different art areas, music and writing, she also became New Mexico's first Scholar in the Arts.

Paula spent Presidential Scholars National Recognition Week, June 12-17, in Washington, D.C., where she performed in Kennedy Center, accepted a medallion from President Reagan at a White House lawn ceremony, and received two \$1000 awards in addition to the \$3000 she had been given in Miami. Seminars with distinguished artists also highlighted the week.

The Presidential Scholars Program was established more than 19 years ago to give credit to outstanding high school seniors for their academic success, leadership, and



PAULA AND HUGH WALKER

involvement in school and community. In 1979, the program was extended to include recognition of students with exceptional talent in the visual, creative, and performing arts. It symbolically honors all American youth of high potential.

Attending Eldorado High School and UNM concurrently for the past three years, 15-year-old Paula has completed high school and two years of college. Her other accomplishments include representing New Mexico at the 1980 National Spelling Bee and winning the E.F. Castetter Scholarship for the outstanding biology exhibit at the 1981 Regional Science Fair. She has been a member of the UNM Symphony since she was 13 and has been awarded a Friends of Music Scholarship.

After completing her college education at Stanford, Paula hopes to become an art critic, supported by her firm belief that in order to interpret art, the critic must also be an artist.

Paula's parents accompanied her on the recent trip to Washington, and her father, who has been with Sandia for eight years in mini-computer software, says, "It was a very exciting experience for us. It happens once in a lifetime. We're very proud and very pleased."

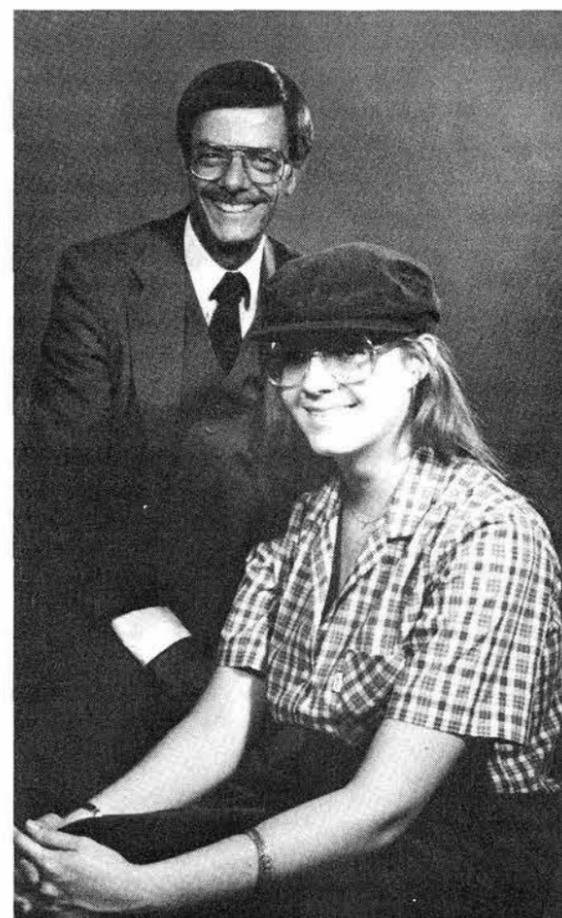
Laura Trauth

New Mexico hosted the 34th International Science and Engineering Fair this year, so it's only fitting that a New Mexico student should win one of its two highest awards. Sharing top honors with a student from another state culminated six years of science fair competition for Laura Trauth, daughter of Chuck Trauth, supervisor of Special Projects Division 7255, and his wife, Diane.

Laura accumulated over 20 awards at the regional, state, and international levels, including the General Motors Glenn Seaborg award of a trip to Sweden for the Nobel Prize Awards Ceremony in December, first place in the Earth and Space Science category, and second in the zoology category at the International Fair.

Laura's project, "Continuing Analysis of Crocodylian Tooth Microstructures and Their Potential for Evaluating Higher Systematics," which she worked on for two years, is based on the fact that amino acids are better preserved in teeth than in other fossil remains. The study could eventually result in easier identification of species from fossil teeth.

In addition to the trip to Sweden, Laura traveled to San Diego last month to present her paper to the American Academy of Achievement and will go to Washington, D.C., in 1984 to engage in national competition as first place winner of the regional Junior Academy of Science Paper Contest. She has also earned a trip to Hawaii this summer by winning the U.S. Navy National Science Cruiser competition. Laura says the Hawaii trip is the result of the award she wanted most — a briefcase she won at last year's regional fair representing the oppor-



CHUCK AND LAURA TRAUTH

tunity to enter the Science Cruiser competition.

A National Merit Finalist and 1983 graduate of Moriarty High School, where she also excelled in history and math and competed on a winning chess team, Laura ranked third in her class. She will attend Notre Dame on scholarships from the Albuquerque Dukes and the American Business Women's Association, majoring in earth sciences with an emphasis in paleontology. She plans to become a vertebrate paleontologist but is leaving herself open to other career possibilities.

Laura praises her father, Chuck, who has been with Sandia more than 20 years, for giving her lots of moral support and for helping her with all the details and errand-running involved in compiling her outstanding project.

Know Where These Folks Are?

The Benefits office is trying to locate the following former Sandia employees or their families in connection with distributions due them from the Employee Stock Ownership Plan. If you know a current address, please call 4-6575.

Alonso, Michael	Goff, John
Artiaga, Albert	Gonzales, Gregory
Basu, Priya	Gorsline, Robert
Baughman, James	Hirschbuehler, Kevin
Beil, Allen	Hren, John
Berlint, Richard	Johnson, Michael
Chama, Ralph	Jones, Alfred
Chavez-Harris, Jo	Kramer, Carolyn
Drocheck, Steve, III	Medina, Anthony
Edwards, Angela	Sumlin, Hugh
Faychak, Albert	Wiggins, John

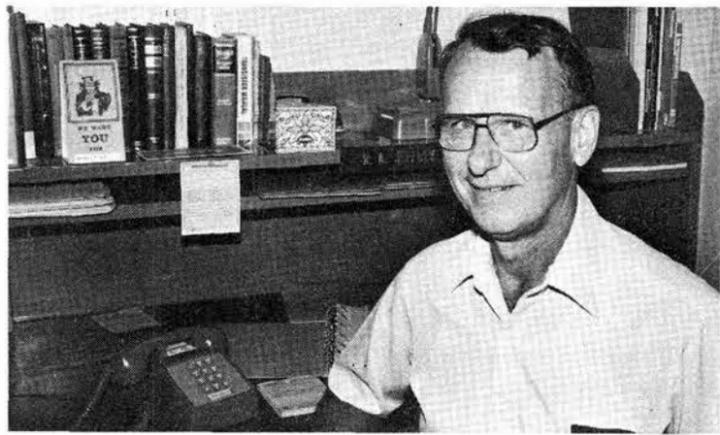
MILEPOSTS

LAB NEWS

JULY 1983



Oz Tjeltweed - 5116 30



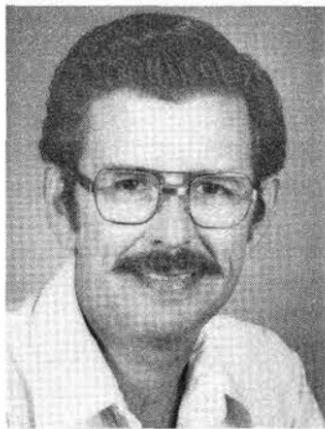
Bob Jeffrey - 5255

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E.M. Beezley - 7135

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John Daniel - 8265 25



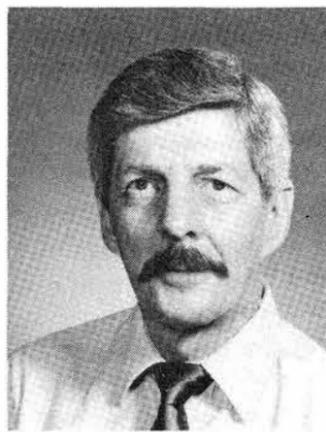
Charles Stillwell - 6224 30



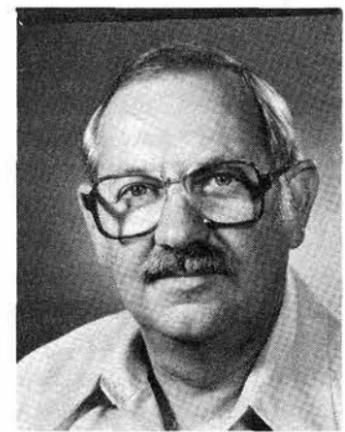
Don Schreiner - 5269 25



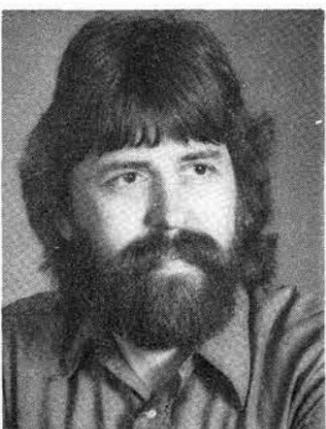
Hovey Corbin - 7525 15



R.T. Jankowski - 2527 25



P.J. Spellman - 2552 25



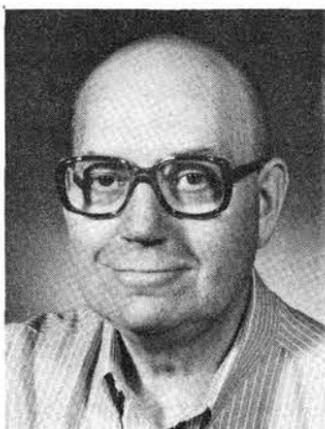
Bill Forbes - 8466

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Dollie Oldham - 3715

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Lloyd Alpaugh - 3151 25



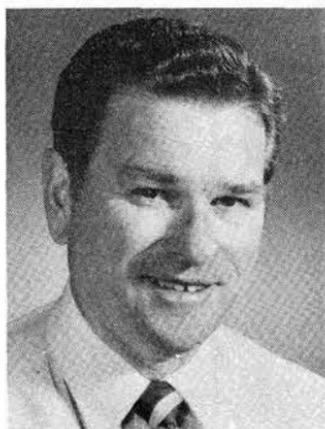
Lil Silva - 3152

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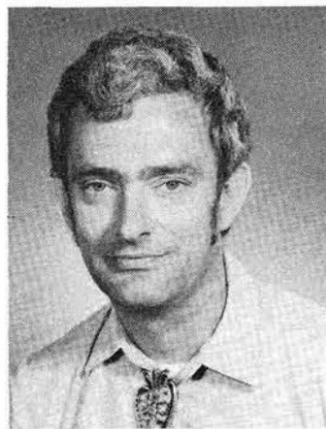


John James - 2363

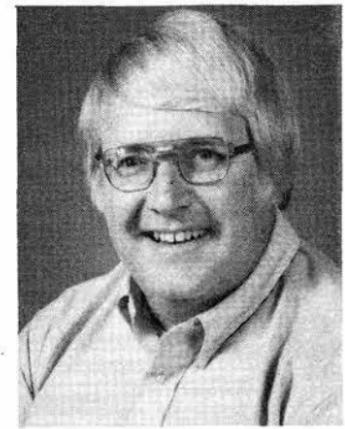
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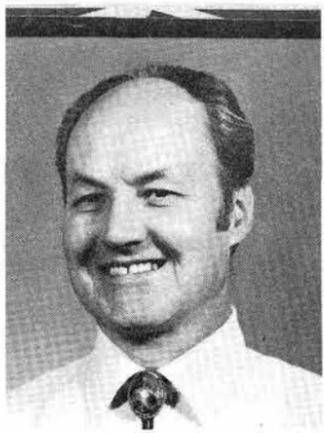
Frank Higgins - 3732 25



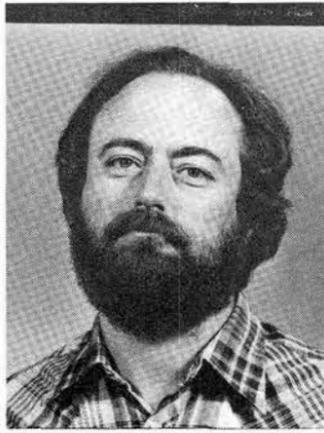
Jim Borders - 1823 15



Jerry Henderson - 8131 20



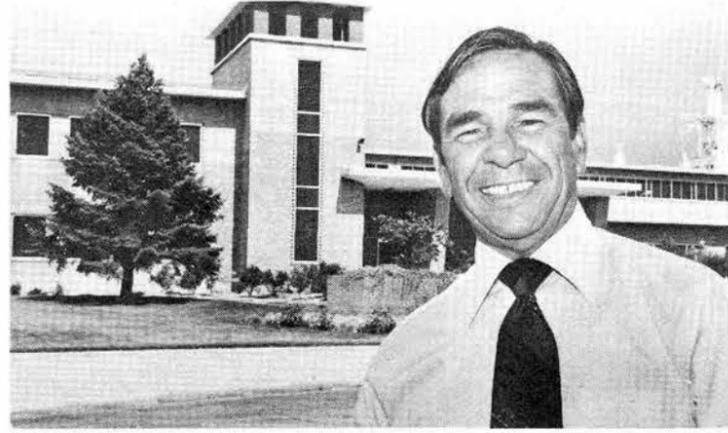
Gordon Hansen - 7126 25



Robbie Smith - 7556 15



George Adkins - 1653 30



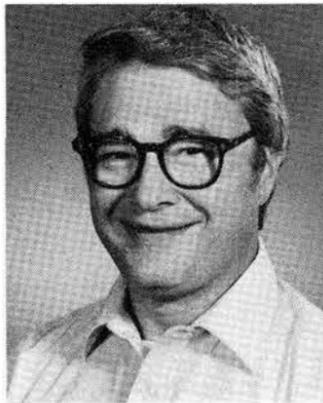
Chris Padilla - 7631

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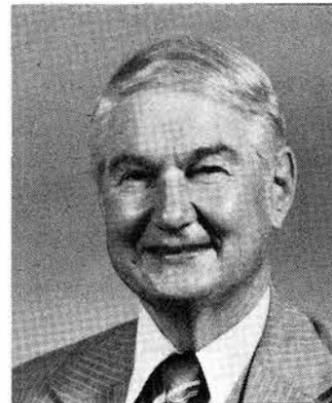


Wally Cordek - 7131

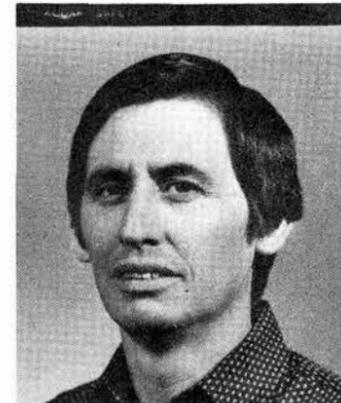
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Richard Johnson - 2342 25



Herman Mauney - 5210 30



Mel Salazar - 2553

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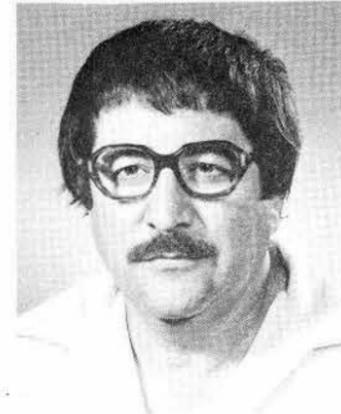
Al Steele - 3154

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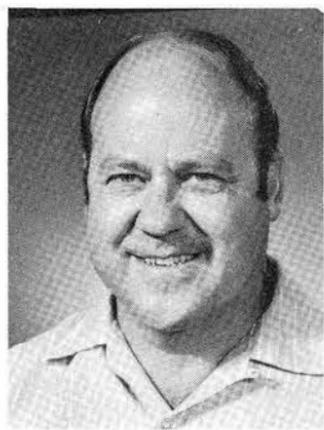
Bob Courney - 7472

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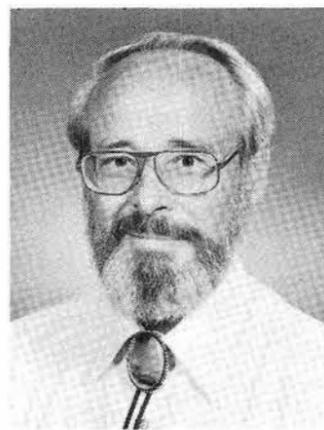
Ernesto Sanchez - 3311

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John Middleton - 5144

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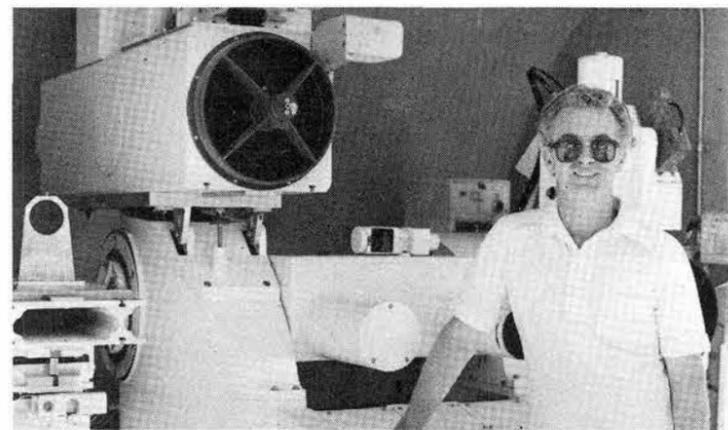
Thomas Flanagan - 7121

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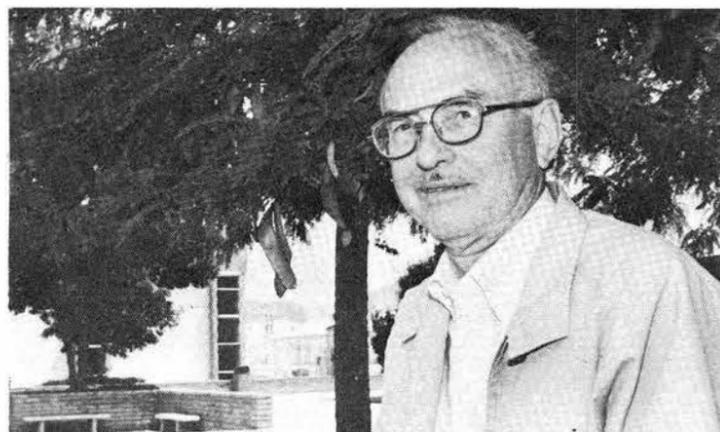
Richard Knutson - 2122

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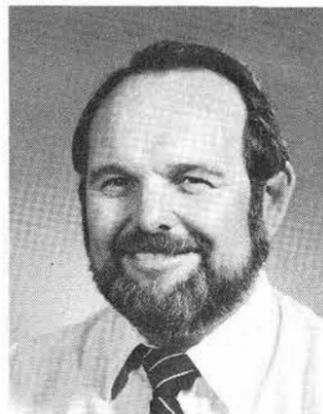
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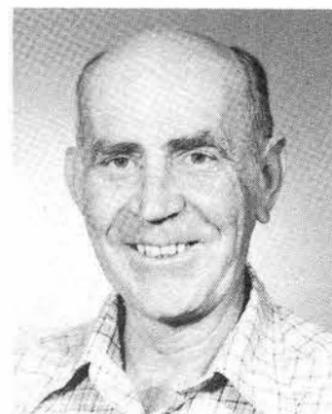
Ray Cohrs - 3662

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Dave McVey - 5133

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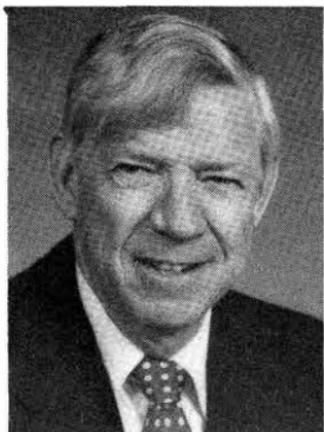
Lester Sandlin - 2363

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M.R. Gutierrez - 1833

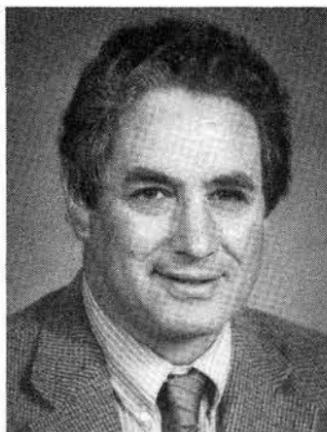
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George Anderson - 8330 30



Gordon Boettcher - 2565 30



Jim Wright - 8450 25



Jose Castillo - 3421

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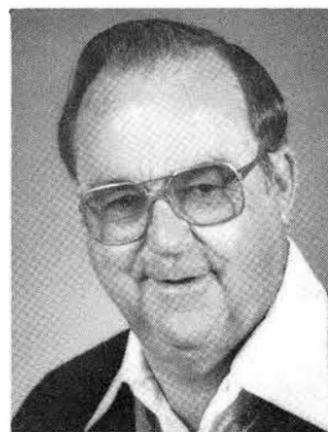


Jim Gover - 2155

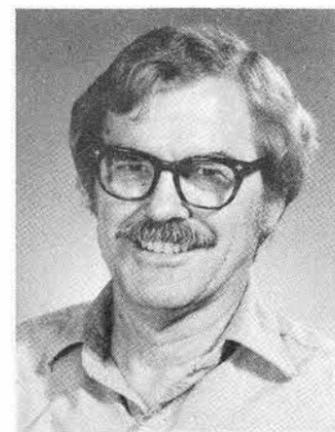
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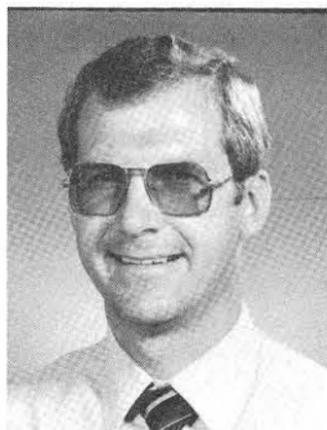
Bob Ware - 8275 35



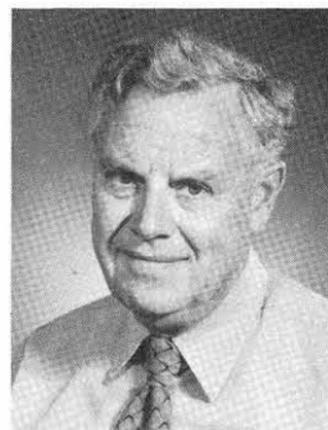
Don Benton - 8411 30



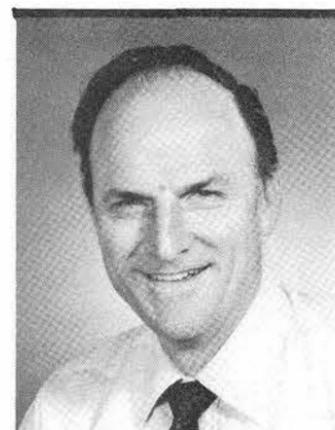
Eugene Kenderdine - 2543 25



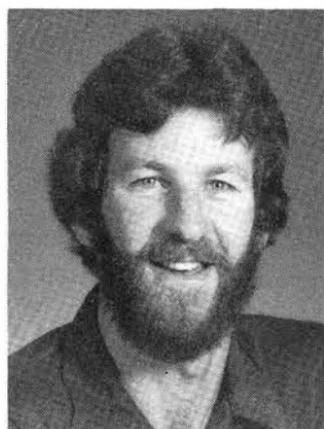
Wayne Shirley - 3651 15



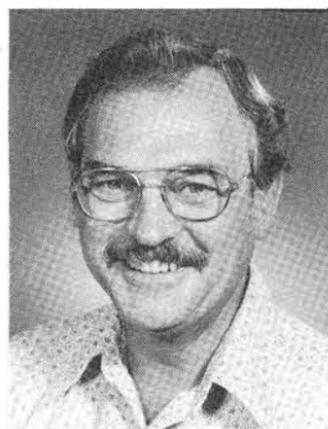
Glenn Mills - 7265 30



Charles Karnes - 1835 20



Tim Sage - 8316 15



Don Holck - 2123 25



Bob Baron - 2153 20



Harold Anderson - 2511

25



Sharon Husa - 2451

15



Larry Hoffa - 8271 15



Curt Specht - 8272 15



Billy Sanders - 8523 15

Here are some current volunteer opportunities. If you are interested, call Karen Shane at 4-3268.

SANDIA PREP needs a computer consultant to help set up the school's system, with the possibility of later linking up with a central information source.

NEW MEXICO AMATEUR HOCKEY ASSOCIATION needs someone with videotape skills to produce a commercial.



ST. MARK'S IN THE VALLEY DAY SCHOOL is looking for a board member with a background in any of the following: accounting, business, education, law, or banking.

MARTINEZTOWN HOUSE OF NEIGHBORLY SERVICE is looking for volunteers: to help young people market note pads obtained from their recycling projects; to compile a pictorial of neighborhood children and elderly (for fundraising); to phone, visit, or deliver meals to homebound elderly to alleviate their loneliness and verify their health and safety (knowledge of Spanish helpful, but not necessary).

UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

CLASSIFIED ADVERTISING

Deadline: Friday noon before week of publication unless changed by holiday. Mail to: Div. 3162.

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 and organization.
9. Housing listed here for sale is available for occupancy without regard to race, creed, color, or national origin.

MISCELLANEOUS

- ONE 700X 15 M&S tire and rim for Ford P.U., \$25; tow chain, \$15. Wright, 296-3850.
- HAND mower, Sears, \$35; fertilizer spreader, Scotts, \$25. Patrick, 822-0703.
- FRENCH Provincial coffee table, \$35; utility cart, \$5. Pinkerton, 255-2505.
- RIFLE, .243 CAL Remington 700 ADL w/sling; 3x-7x Luepold scope; \$325. Duncan, 766-3319 days only, Edmund, 881-7974 after 6 p.m.
- CHAPS, appx. 34" in lgth, dark gold & light tan, zippers, \$40; hat felt dark belly, 7 1/2", \$25. Brown, 298-0531.
- AUDIOPHILE albums, Nautilus - Half-Spd. Mastered, Joan Baez - Diamonds & Rust, The Police - Ghost in the Machine, \$10 ea. Ritchey 268-7620.
- NEW 48-in. ceiling fan w/light, variable spd. control, permanently lubricated reversible motor. Strasburg, 299-4214.
- LANE coffee & end table, lt. walnut-modern, both for \$150. Sanchez, 836-3060.
- TWIN size bed with springs and mattress; \$40. Swenson, 821-8363.
- CAMPER shell, fiberglass fits LWB Ford or Chev. 1/2-ton P.U., sells for \$500, will take \$275. Marquez, 344-8455.
- FISH aquarium, 20 gal. with all accessories, \$35. Kaiser, 296-5215.
- CAMPER shell, Gemtop, fits LWB, cab high, lights, tinted windows, very sturdy, \$210. Cook, 869-6921.
- FREE kitten w/her litter box, toys, etc. Jackson, 293-0988.
- STOVE - ceramic top; electric range w/hood; \$250. Sherman, 292-3297.
- APPALOOSA horses, trained geldings and mares for anyone to ride; sell or trade, all offers considered. Ashbaugh, 1-384-2671.

- BAMBOO patio shade, 10 ft. wide, \$10; old wagon wheel, \$30; printers trays, \$12 to \$45. Peterson, 256-7514.
- BLENDER, Osterizer, dual range pulse-matic, 16-spd., w/manual, \$14. Rauch, 821-6992.
- POOL cover - solar blanket, cut for standard 16'x32', kidney shaped swimming pool, \$25. Dippold, 821-5750.
- ELECTRIC 40-gal. hot water heater, used one year, \$100. Eiffert, 281-3053.
- QUASAR video recorder, VH5000, 2-hr. or 4-hr. machine, \$300. Ortega, 296-7090.
- FIBERGLASS camper shell, fits late model Rancheros, \$175. Marchi, 299-8516.
- DREXEL 90" sofa, loose pillow back rolled back, rust background-beige & blue print, \$1800 new, make offer. Thalahammer, 298-8521.
- REFRIGERATOR, Coronado frost free, 15 CF, white, \$25. Spielman, 292-4953.
- DELCO AM/FM stereo receiver from 1981 Chevrolet, \$30 or best offer. Hudson, 881-2550.
- KITCHEN table and chairs, \$50; Sansui 771 receiver, \$125; Technique SL-1400 turntable, \$90; S-C portable electric typewriter, \$125. Mastin, 292-2086.
- ELECTRIC mower, 18 in., heavy cast alum. housing, \$60; HP-34C calculator, new battery pack, instructions, \$50. Lewis, 883-8454.
- 3 SLIDING patio doors, 4-ft. wide, dual panel, bronzed finish, tracks, \$195. Naru, 831-6564.
- COMPUTER modem, S100, \$50; teletype, \$75; 2 microflopies w/S100 controller, \$450; +5-12+24V power supply, \$30. Hubbard, 842-9431.
- FISHING flies, custom tied, standard patterns, \$7/doz. Swanson, 884-8650.
- LAWN mower, gas, adj. ht., \$20; dog house, never used, med. size, \$20; '67 World Book Encyclopedia, best offer. Pritchard, 293-5297.
- FOUR point hammock with stand, \$25. Webb, 294-8341.
- FREE, will cut down uncomplicated trees. We take firewood, you keep branches/stump. No powerline or backyard, problems. Shunny, 265-1620.
- MARK X Cavalier rifle, new - never been fired, 30-06 caliber, \$315. Ritter, 298-7315.
- GLASSWARE, Noritake, perspective amber, 10 ea., tumbler and wine, \$3 per stem, not sold individually. Blaine, 299-1036.
- MINOLTA (SRT101) camera, Minolta lens is Rokkor-X 50mm w/leather case, \$175; Telesar automatic zoom lens, 80-250mm, f4.5, 12°-29°, \$150; Wilcox Gay disc and tape reel recorder w/public address system, \$150. Porter, 884-4577.

- TRANSFORMERS, relays, meters, circuit breakers, pumps, valves, gauges, RV equip., auto accessories, photo equip., 8B AC/DC. Cundiff, 256-0043.
- KING trombone w/F-attachment, \$300. Eley, 296-3185.
- ATARI 2600: donkey kong, miniature golf, starship, outlaw, video olympics, slot racers, plus more, \$125. Kureczko, 298-1577.
- SILVER service for 12 Holmes & Edwards "lovely lady" inlaid silver plate. Workhoven, 281-3246.
- DISHWASHER, Kenmore, 18 in. wide, white w/butcher block top, appx. 1 1/2 yrs old, \$200. Humberstone, 281-1120.
- WATER heater, 50 gal., nat. gas, A.O Smith, 1 yr. old, 5 yr. tank, \$100. Gubbels, 884-3711.
- HIDE-A-BED, \$90; velveteen chair and sofa, \$150 both. Marder, 256-7805.
- MICROPHONES, mixers, audio & PA equip., Electro Voice & Shure. Nowak, 292-8132.
- AREA rug; TV, \$40; 2 refrigerators; dinette set; baby crib; breakfast table (no chairs). Hays, 298-6124.
- ROLLAWAY bed, Kroehler sofa, 20" breeze box, floor fan 3-spd., 1060 Lionel train set, men's garment bag. Campbell, 299-4830.
- WELDER, AC, 225A cont. duty, \$250; chain hoist, 1/2-ton, \$50; pull hoist, 3-ton, \$75; table saw, Craftsman, 9", \$200. Mozey, 822-0296 after 5 p.m.
- SPEAKERS, ultralinear, 3-way, w/10" woofer, \$115/pair. Johnston, 299-1830.
- HANGING fireplace, ski lodge style, 360° screen, 37-in. dia., 57-in. ht., black, 4 suspension chains, \$300. Talbert, 298-9036.
- AIR conditioner, window unit, 1-ton, 220V, \$50; B&D weed eater w/100 ft. cord, \$15. Norwood, 292-0072.

TRANSPORTATION

- '75 HONDA, 750 Super Sport, 4 cyl., 3600 miles. Ortega, 296-7090.
- '76 FIAT, 131 Sta. Wgn., 5-spd., AC, new upholstery, \$1500 or make offer. Barton 268-7349.
- '80 MUSTANG Ford, 26,000 miles, AC, AM/FM stereo, CB, 4-cyl., 4-spd., \$4000. Moore, 345-4030.
- '72 TRIUMPH 650 Bonneville motorcycle, fully customized. Gonzales, 344-4933.
- '80 HONDA CM200T, 1800 miles, \$750 or best offer. Cieslak, 294-0371.
- BATAVUS MO-PED deluxe model w/windshield and carrying baskets; size 7 Bell helmet. Make offer. Ashbaugh, 1-384-2671.
- SCHWINN bicycle, child's Pixie II Sting Ray, 16" tires, \$40. Sweet, 281-3652.
- '81 Yamaha Maxam 550, 2400 miles, \$1900. Henz, 821-0645.
- '72 FORD E200 Window Van, 302V8, AT, PS, PB, 2-captains chairs, carpet, new battery & starter, \$1200. Miller, 292-5286.
- '79 MG Midget, red, \$3800. Fenimon, 298-8052.
- '78 CHEVROLET Nova, 6-cyl., PS, PB, A/C, radio, \$2900 or best offer. Sandoval, 299-5789.
- '72 KARMANN GHIA coupe, AC, \$2200. Young, 292-2805.
- '71 FORD Maverick, 4-dr., 6-cyl., AT, new tires, \$500 or best offer. Hohmer, 821-1459.
- '70 VW Squareback, \$1500 or best offer. Rarick, 293-0644.
- '74 MERCURY Montego, 302 V8, AT, AC, rebuilt trans, 4 almost new tires, \$795. Pritchard, 299-3543 after 5 p.m.
- '80 SUBARU SW, AC, 5-spd, top rack, 30,000 miles, \$4500. Lackey, 898-6638.
- '80 SUZUKI, GS750E, dark blue, new tire, case savers, tank bak, driving lights, helmet, gloves, \$2300. Williams, 293-9174.
- '76 DATSUN pickup, long bed, 4-spd. transmission, 2000 CC engine. Bell, 294-2094.
- BICYCLE: men's Schwinn 10-spd., Continental, chestnut color, rack, mini-fenders, saddle bag, needs new rubber, \$75. Kureczko, 298-1577.
- '76 FORD Courier pickup, AM/FM tape, lg. side view mirrors, priced below NADA book. Shortencarier, 292-3575.
- '72 F100, 300 6 cyl., 4-spd, 2 tanks, AM/FM 8-track, chrome spoke wheels, new tires. Luikens, 884-1172.
- '80 PONTIAC Sunbird, AT, AC, new tires, 30 mpg., \$3800. Woodall, 266-2416.
- '80 TOYOTA PU, 4WD, 6000 lb. winch, camper shell, \$5500. Nichols, 296-8259.
- '79 HONDA XL250, 1800 miles, \$1000. Campbell, 294-6000.
- '53 FORD, 2-dr., customline, 6-cyl., w/3 spare wheels, tires, \$450. Gregory, 299-2461.
- BMX bike, 20" Roger DeCoster MAG wheels (tuffs), \$139; 10-spd. Liberia, \$145; Schwinn Stingray, \$39. Mayer, 294-3368.

REAL ESTATE

- COUNTRY ADOBE house near Vaughn, NM 2-br, bath, \$35,000 or best offer. Gonzales, 296-9055.
- 3-BDR, office, den, LR, DR, Bear Canyon Village, market analysis at \$91,000 will take \$88,000. Perkinson, 821-5206.
- NE HOUSE near base, low down payment, 3-bdr., 1 1/2 bath, landscaped, lg. fenced yard, new carpet, roof and A/C. Pershall, 822-0814.
- 10 ACRES 6 miles east of Los Lunas, electricity and phone; 5 acres - \$20,000 or 10 acres - \$35,000. Cook, 268-6406.
- 3-BDR, carpeted, bath, LR, kitchen, basement, sunporch, garden, 2-rentals, 3-br, 1-br, zoned R2, assumable VA, \$20K CTL. Conklin, 821-6181.
- 2-ACRES, Canyon Estates, earth-berm, solar; 6 miles east of city, \$20,000 cash or terms. Barr, 281-1858.
- 1.3 ACRES, "El Pinar" Estates, 14 miles east off frontage road, wooded, electricity, phone, solar home location, \$8000. Perryman, 281-3020.
- 1976 CENTURIAN, 14x64, 3-bdr., 1 1/2-bath, \$5000 down/\$139/mo. Chuck, 296-1812.
- 4-BDR. Mossman, den, 2300 sq. ft., new carpet, \$89.5K. Esterly, 883-1477.

WANTED

- GOLFERS spectator seat, portable. Mason, 281-3052.
- HUMAN-powered push lawnmower. Swenson, 821-8363.
- CHANGING table and chest of drawers suitable for nursery, preferably white. Detorie, 266-4806.
- WOOD for smoking meat - cherry, peach, apple, etc., lrg. limbs ideal, will cut and haul. Bradley, 293-9586.
- GOLF clubs, irons and woods, mens, womens, and childs. Would like used inexpensive sets. Carne 296-4219.
- HOUSE-TO-SHARE, beginning Oct. 1, new employee (dog-owner). Will visit Albuquerque on July 27, Mark Boslough - 109 S. Chester, Pasadena, CA 91106, (213) 792-4266.
- RESPONSIBLE woman, (signing on in Aug) would like to house-sit or rent furnished house 6-12 months; loves gardening. Meyer, 303-979-4064 evenings.
- UNICYCLE in good working condition. Webb, 294-8341.
- 3-BR apt or house for family, prefer SE. Pitcher, 846-4862.
- LUGGAGE rack for '72 VW Bug. Gendreau, 268-3436.
- '74-'78 DATSUN B210, body parts wanted, 2-front fenders, hood, grill, bumper, radiator. Parting out 1974 Subaru, 1964 Saab. Bauhs, 281-2688.

SHARE-A-RIDE

- CARPOOL member vicinity Morris and Candelaria, 8 a.m.-4:30 p.m. McKeever, 299-2777.
- ANYONE interested in sharing a ride from the area of Louisiana and Constitution, special parking permit available. Rose Ann Schultz, 255-0686.

Birthday Bash Set July 30

TONIGHT at Happy Hour a group called Nightrider heads 'em up and moves 'em out playing a variety of tunes with the emphasis on country and western. The special tonight is baked butter lemon cod for \$6.50. The Club's standard menu featuring fine steaks, chicken, and seafood is also available. Next Friday, July 28, the Saints are booked to play Spanish and western while veal cordon bleu is the menu special at \$6.95.

THE CORONADO CLUB marks 33 years this month. The Club was born in July 1950. Members who taught their kids how to swim in the toddler's pool are now teaching their grandchildren how to swim. A lot of memories accumulated at the Club. Through the years, it's been the best private club in the city. (And it still is. And it gets better. Every day.)

Help the Club celebrate on Saturday, July 30, starting about 5:30 with cocktails and a toast to continued good health. King crab legs or prime rib for two for \$12.95 will be served from 6 to 8:30. Western Flyer plays for dancing until midnight or so. Live it up. Time is marching on. Call 265-6791 for reservations.

TUESDAY TWO-FOR-ONE dining on July 26 features medallion of tenderloin for two for \$12. The cool cerebral jazz of the Arlen Asher Trio adds to the candlelit ambience. Good food and good music are a hard combination to beat.

ATTENTION CHILI LOVERS, particularly those with their very own special recipes. The Coronado Club First Annual Chili Contest and Pool Party is scheduled Saturday, Aug. 6, starting at 11 a.m. in the patio. Bring a gallon of your favorite chili and enter the contest. First prize is \$50, second is



TALENT SHOW

"HI-DIDDLE-DI-DEE, an actor's life for me!" Well, at least for one day this fall, says John Gardner (3153). "I'm looking for singers, jugglers, comedians, musicians, and dancers of all types — ethnic, ballet, tap, gandy, whatever," he says. John is organizing an "ECP" — Employee Concert Party — to attract attention to Sandia's ECP — Employee Contribution Plan. "In England, concert parties are outdoor entertainments," says John. "I thought one would be especially appropriate at Sandia to highlight our ECP's campaign week." The talent show will be Oct. 3 on the mall in front of the library. Call Ellen Cronin (4-7019) to sign up.

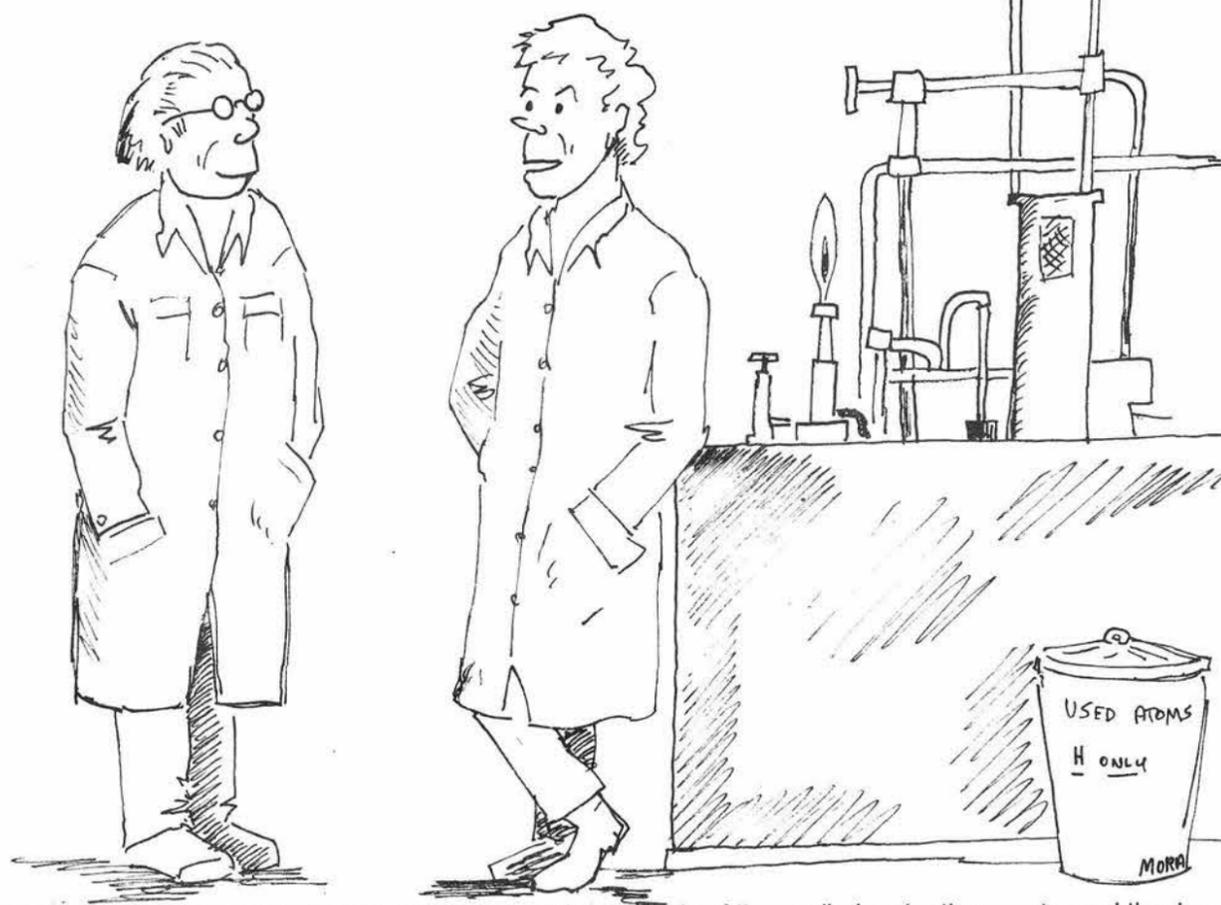
\$25. C-Club chef Larry Lucero heads a panel of judges. In the meantime, the Club offers barbecued chicken with baked beans, cole slaw, and rolls for \$3 along with hamburgers, hot dogs, and other goodies from the snack bar. There'll be dancing on the patio all afternoon to a western group called Flandango. You'll have to cool off by jumping in the pool. Los Tapatios, a group of tal-

ented youngsters, will perform Mexican folk dances. Kids may participate in a full schedule of games and adults may enjoy a mug of beer for 50 cents or margarita for \$1. To register for the chili recipe contest, call the Club office on 265-6791. Members show membership cards for admission, guests pay \$1.

THE CORONADO CLUB WOLFPACK throws its annual membership party Sunday, July 31, for all old and prospective members. It's a backyard and pool blast at the home of Ben (9416) and Gerry Roscoe. Lobo coaches will discuss competitive swimming with demonstrations. The Wolfpack is a fun group providing travel and social events while boosting Lobo athletics. Call Bill Minzer, 299-1364, or Clara Kopp, 268-4048, for more information.

TRAVEL — Some changes in destination are announced for the Caribbean cruise coming up Oct. 29-Nov. 6. The ship will now call on St. Thomas, San Juan, Nassau, and Puerto Plata Island. Cost is \$1095; deposits are due right away at the Club office. Ditto for the China tour Sept. 18-Oct. 7 for \$2810.

Other Club trips include Durango-Silverton by charter bus to ride the scenic railroad for \$95, double occupancy; Las Vegas by bus Sept. 11-14, \$124; or by air Sept. 11-13, \$146; Mazatlán Oct. 31-Nov. 7 with Trans-Globe Travel (Chet Fornero) for \$299 or Nov. 7-Nov. 14 with Academy Travel for \$297 (does not include Mexican tax); and New Orleans at World's Fair time May 25-29, 1984, for \$555.



"Hydrogen atoms are really hard to detect. Yesterday a couple of them rolled under the counter and they're the dickens to find."