



VAPOR PHASE GENERATOR, which offers great versatility in producing chemical compounds and mixtures, was recently patented by the AEC in the names of inventors Jim Corll (5316), back, and Dick Baughman (5154).

### Vapor Phase Reactor

## Invention Solves Problems in Mixing Certain Chemical Compounds

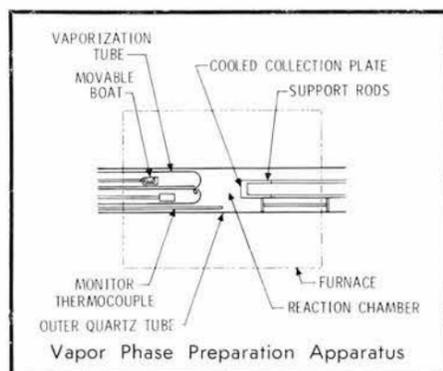
Production of solid state electronic components, such as semiconductors, requires various chemical compounds and mixtures which have been manufactured using a variety of methods and apparatus — each with drawbacks or limitations.

If the reactants normally exist in vapor or liquid form and their boiling points are not too high, there is no problem in making a binary compound.

But compounds from normally solid reactants (metals, for example), or reactants with high boiling and melting points have to be prepared in aqueous or organic solutions, and the problems here are (a) to prevent loss of solvent through vaporization and (b) to separate the reaction products from the solvent. In some cases even finding a suitable solvent was an additional difficulty as was the production of a multicomponent compound from more than two reactants.

Dick Baughman (5154) and Jim Corll (5316) have developed an apparatus which enables the preparation of samples of solid compounds and mixtures from the vapor phase. The device is simple to construct, easy to operate, and adaptable to a wide variety of materials.

It consists of a fused quartz tube whose central portion is encircled by an electrical furnace to form a reaction chamber. Within the main tube are as many individual vaporization tubes as required; each contains a small quartz-lined tantalum "boat" into which the reactant material is placed. The boats are mounted on rods which contain thermocouples to give an instant read-out of temperatures. The temperature (and vaporization rate) can be controlled



by moving the boats to different positions within the vaporization tubes.

Vapors from the heated materials escape into the reaction chamber through small ports in the vaporization tubes and are carried through the chamber by a nonreactive carrier gas; the vapors are then deposited on a air-cooled collection plate located at the end of the chamber.

They designed the apparatus to obtain cadmium zinc sulfide compounds. With the small furnace and a maximum temperature of 1250°C, the collection plate temperature can be adjusted so that at the hot end pure zinc sulfide is gathered, at the cold end cadmium sulfide is obtained, and through the middle a ternary compound is collected.

Ternary semiconducting compounds have also been produced successfully from zinc, lead, bismuth, antimony, thallium, mercury, selenium, and tellurium.

### Sandia's Retirement Counselor

## Bert Quelle Retiring Today

Bert Quelle (3122) retires today. After 10 years of handling Sandia's retirement counseling program, Bert is eager to take his own advice.

"This is a great day for me," Bert says. "Not that I'm eager to leave Sandia — I'll miss the activities and the people — but I want to get on with the business of living and the new freedom."

This kind of enthusiasm is characteristic of Bert. He's never had a bad day. Even when it was a bad day, Bert figures he learned something so it was, after all, a good day. Bert is not a Pollyanna — he's more of an enthusiastic realist.

Planning was the key to Bert's retirement counseling when he was talking with the more than 600 Sandians who have retired in the past 10 years. He stressed knowing what it was that you wanted to do and then taking the necessary action to accomplish the goal. He stressed being involved — defined as an intense kind of caring — with people, activities, organizations and projects that would give the individual a number of things to look forward to.

Bert, in his "new freedom" of retirement, is looking forward to another trip to Europe, spending more time at "Sandia Haven," his mountain retreat, visiting with

# LAB NEWS

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FEBRUARY 27, 1970

SANDIA LABORATORIES · ALBUQUERQUE NEW MEXICO & LIVERMORE CALIFORNIA



**COSTS SAVINGS ACTION** by Jim Ayers (4373), left, and Bob Armstrong (5221) will save Sandia \$14,200. The Sandians located a new plastic material and supplier for the six-foot diameter rings which form the insulator tube assembly in the Hermes II flash x-ray machine. The new material has functioned through 700 firings of Hermes II, compared to less than 200 for the material previously used. Hermes II dumps up to one million joules of energy from its capacitor bank to produce bursts of high energy x-rays.

### Bill Prekker Elected Credit Union Head

After the recent annual meeting, the new board of directors of the Sandia Laboratories Federal Credit Union elected officers. Bill Prekker (4122) is president; Jack Westbrook (9411) is vice president; Joe Miller (4122) is secretary; and Bill Bristol, credit union manager, is treasurer.

Mr. Bristol is a newly elected board member along with Bill Funk (8210), and

Ralph Hampy (2633). Bill Olheiser (4516) was reelected to the board.

Charles Turner, credit union associate manager, was elected to the credit committee. Other members are George Wayland (3122) and Molly Raisen, Credit Union employee.

The supervisory committee is composed of Karl Waibel (4117), chairman, Bob Butler (4364) and Joe Holdridge (4121).



**DON COTTER**, Director of Systems Planning (100), has taken a two year leave of absence from Sandia Laboratories to assume the post of Director of Overseas Defense Research in the Advanced Research Projects Agency. The DOD-sponsored group deals with a variety of defense problems, including counter-insurgency, and maintains field offices in Seoul, Saigon, Bangkok and Beirut.

his eight grandchildren, and working with a number of organizations including his church, CASA (Coordinated Activities for Senior Adults) and the New Mexico Commission on Aging.

In addition, Bert loves his music and his books. He also plans to do some writing.

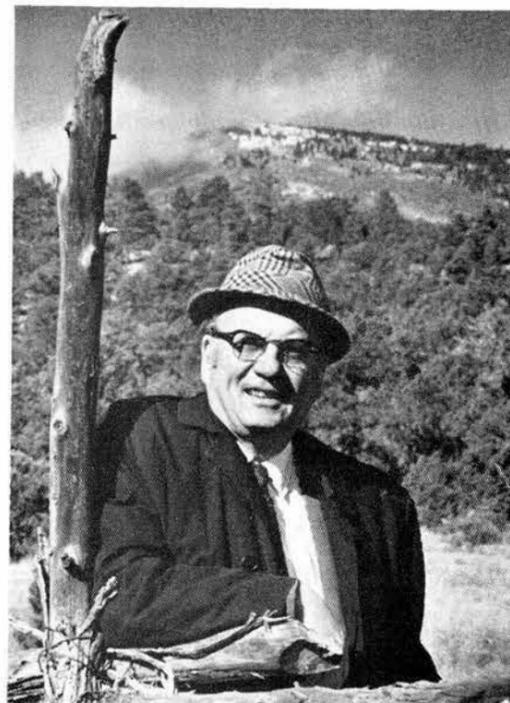
Throughout his life Bert has been concerned with education. He was a teacher, a college dean and president, a supervisor in WE's training programs, and his first assignment at Sandia almost 19 years ago was to conduct a supervisor training program. In his writing Bert wants to explore the special subject of "learning to live."

"Ours is a time of changing values," Bert says, "and people are more concerned with the question of 'how do you live your life?' Well, I've got a few things to say on that subject."

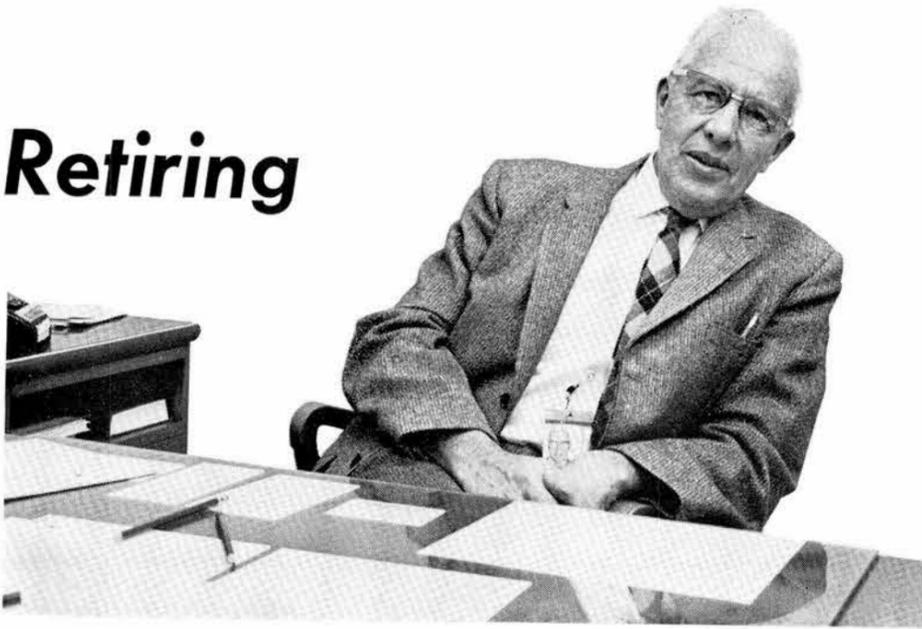
"It seems to me that the fundamental values are unchanged. The most important things are self-knowledge, relations with other people, and an attitude toward life. The only time I worry about kids is when they doubt their self worth, have a negative attitude and no goals for living."

Bert's goal is obvious: "To have as many good days as I can."

And Bert has never had a bad day.



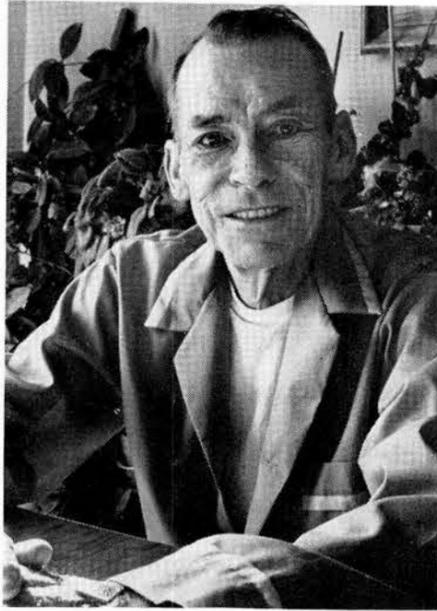
# Retiring



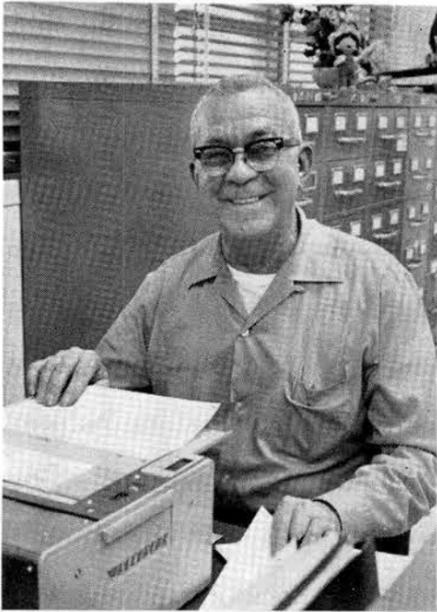
**CHARLES OLAJOS**  
Ass't. Treasurer and Manager  
Financial Dept. 6020



**LEROY HASSEBROEK**  
Micrographics 7632



**GEORGE BLANCHETTE**  
Machine Shop 4252



**ELMER HARTENBERGER**  
Records Management 3428

## Supervisory Appointment

BOB YODER to manager, Assistant Treasurer & Financial Department 6020, effective March 1. He replaces Charles Olajos who is retiring.

Bob has been at Sandia since 1948 when he was a University of California employee assigned as assistant manager of the Business Office. When Sandia Corporation was set up in 1949, he was named supervisor of the Financial Division. He subsequently was supervisor of the Vouchering and the Payroll and Disbursements Auditing Divisions. In 1968, he moved back to the Financial Division where he has been supervisor until his present promotion.

Before coming to Sandia, he was the administrative manager for a research and development project of the New Mexico School of Mines. He also operated a clothing store in Albuquerque for a brief period. During WWII, he was regional budget officer for the Office of Price Administration in Denver.

He attended New Mexico A&M (now NMSU).

Bob and his wife Catherine have four children and live at 750 Montclair NE. One son, James, works in Data Planning & Reports Division 7415.



## Congratulations

Mr. and Mrs. Carl Julian (5132), a son, Francis Thomas, Jan. 9.

Mr. and Mrs. Al Stevens (5133), a daughter, Michelle Ann, Jan. 10.

Mr. and Mrs. Don Bjork (1221), a daughter, Rebecca Ann, Feb. 19.

## Orientation Class Held for Tutors; Still Time to Volunteer Your Help

The recent campaign by the LAB NEWS for volunteers to tutor school children has attracted 20 potential tutors. A special orientation session was conducted by the Albuquerque Tutoring Council last Tuesday for Sandians who expressed an interest in participating in the program.

It's still not too late to help in this worthwhile activity — a once-a-week stint. Just fill out one of the request forms on the "Supertutor" posters, located throughout the Laboratories.

Meanwhile, a team effort has been underway in the 2400 organization to enroll more tutors. Tom Starr conducted a survey in Department 2440 and Bob Roberts in Department 2450 to see who might like to help.

"The company is interested in furthering the goals of Equal Employment Op-

portunity and education is certainly one of the important phases of any such program," Tom explains. "I'd like to get employees involved and have been sending out individual letters telling about the Albuquerque Tutoring Council."

The idea has been well received and eight persons have said they would tutor. An orientation course is being set up for them. Several additional Sandians said they would be able to help in the program next fall.

Tom has tutored both high school and college students. He notes that "... sometimes a parent and his child get so tied up emotionally that tutoring by the parent just doesn't work. This is where an outfit like the Tutoring Council is especially valuable."

## Bill Bray's Feeling as Blood Donor—'Modest Contribution to Community'

Bill Bray (9342) has been a blood donor for some time. Blood Services of New Mexico will accept blood from the same donor at no less than eight-week intervals (and no more than five donations a year). "But the need is so great," Bill says, "that the last time, the blood bank called me eight weeks and one day after an earlier donation to see if I was still willing to help."

This blood bank, one of 24 such non-profit organizations scattered across the country, delivered about 13,000 units of blood in 1969. Blood Services of New Mex-

ico (BSNM) has a donor list of 1500 Albuquerqueans, but even if these donors give the maximum each year — and the supply is supplemented on a one-time-basis by friends of specific patients — there still is a blood deficit.

Blood types among the nation's population are generally: O+, 39%; A+, 35%; B+, 9%; AB+, 4%; O-, 6%; A-, 5%; B-, 1.5%; and AB-, .5%. The Indian population in and around Albuquerque is heavily O+ which has resulted in an unusually high (46%) demand for O+ type blood. Bill Bray's blood type is O+ which partly accounts for his popularity.

"From my standpoint," he says, "giving blood is a modest contribution to the community. Usually I take the \$5 and give it to some other organization or cause in which I believe. Others might donate their blood for a medically indigent patient."

"My basic reason for donating is that it doesn't seem right that needed surgery must sometimes be delayed because blood is not available. The pint I gave today will be used at 3 p.m. today," he continued.

For further information about being a donor or how to gain "blood insurance" for you and your family, contact Blood Services of New Mexico, 318 Elm SE, tel. 243-2427.

## Events Calendar

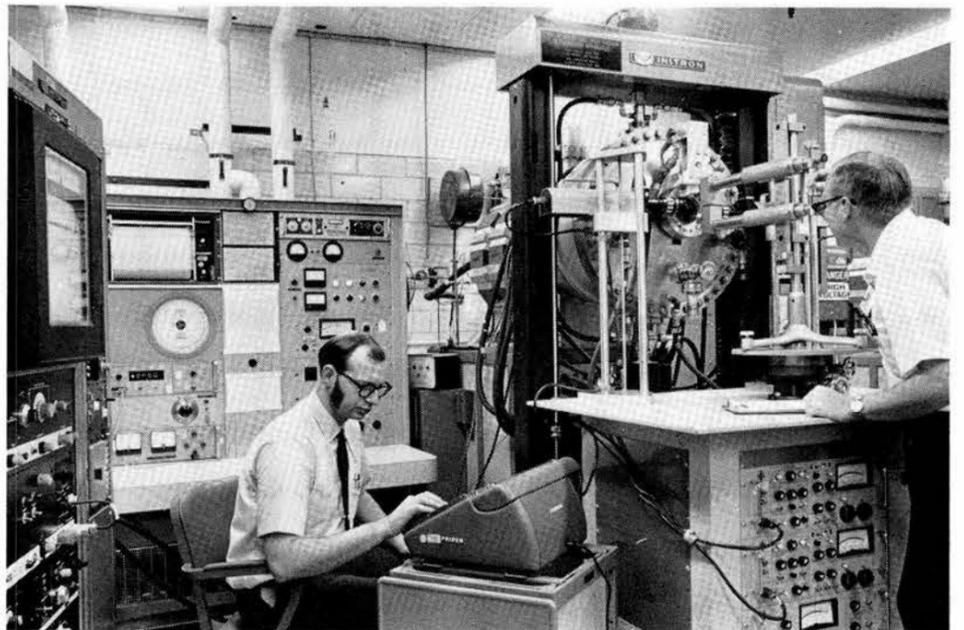
Feb. 27—Classical guitarist Francisco Espinosa. UNM Popejoy Hall.

March 1—Museum of Albuquerque presents National Park Services films on environmental awareness. Free, 2 p.m.

March 5-8, 12-15—"Dada Is as Dada Does," a collage of surreal plays. Old Town Studio, 1208 Rio Grande NW.

March 7—Repertory Dance Theater. UNM Popejoy Hall.

March 10—Community Concert series presents the Stockholm Philharmonic Orchestra, conducted by Antal Dorati. UNM Popejoy Hall.



**HOT NOTHING** — High vacuum, high temperature test apparatus, one of the first of its kind, is now operational in the Space Power Materials Research Division 5321. The new test device, which can attain a vacuum of  $5 \times 10^{-12}$  torr and temperatures up to  $3000^\circ\text{C}$ , is used to study creep in refractory metals such as tantalum, molybdenum, and their alloys; metals are under study for high temperature applications in space vehicles. Dick Ericksen (left), computes measurements while Larry Hermesmeier calibrates the optical measuring system. Recording instrumentation is at left.

## LAB NEWS

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### SANDIA LABORATORIES

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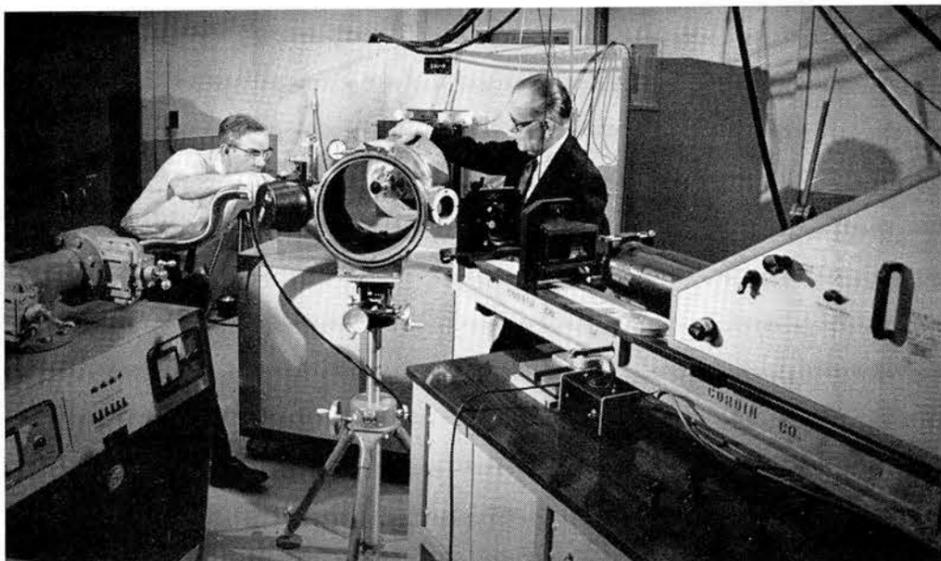
Matt Connors & Lorena Schneider

are Staff Writers in Livermore

Bill Laskar is Photographer

Norma Taylor / All The Rest





EXAMINING COAXIAL FLYER ASSEMBLY in vacuum chamber are Wil Vandermolten (left) and Dick Jacobson (both 8122). Blot flat and coaxial magnetically driven flyer plates are used by Experimental Mechanics Division 8122 to determine how materials and structures react to impact.

### Shocking Situation

## 'Flyer Plate' An Effective Tool In Material and Structure Studies

Shocking a material sample or structure by striking it with a thin, magnetically driven flyer plate is an effective way for Experimental Mechanics Division 8122 to determine how the material or structure reacts to sudden pressure pulses of the kind experienced in high-speed impact.

Using the force of magnetic repulsion, a flyer plate is accelerated into a test sample. Upon impact, a streaking camera measures both flying plate velocity and how evenly the plate strikes the front surface of the target. A quartz gage measures pressure transmitted to the rear surface of the sample.

Most tests to date, made on material samples, are set up by placing the flyer plate assembly within an aluminum vacuum chamber so that there is no air cushion between the flyer plate and sample.

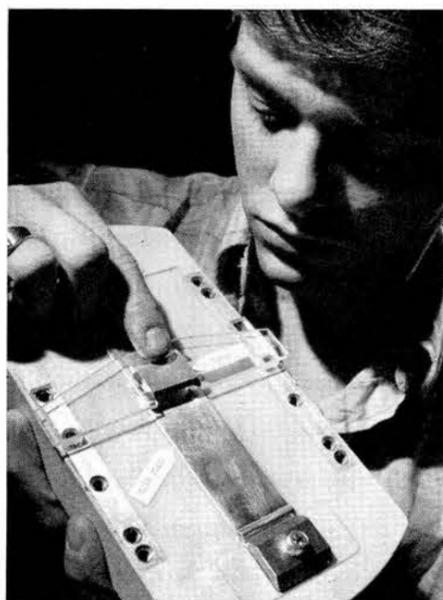
"By varying the velocity and thickness of the flyer plate and then using elastic-plastic computer codes," says Dick Jacobson (8122), "engineers get data on the spall threshold of solid or layered materials, or of adhesive bonds."

The streaking camera records the image of the sample's edge as it is deflected by the moving flyer plate. From this data, the flyer velocity can be computed. By a slightly different streak camera technique, planarity of the impact can also be measured.

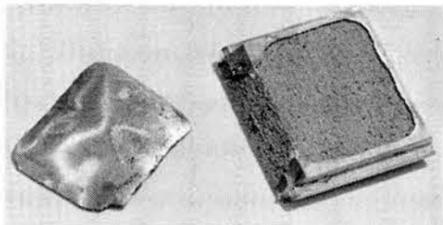
Either of two capacitor banks, operating at 14- or 42-kilojoules, supplies the electrical energy needed to accelerate the flyer plate. Peak power of the 42-kilojoule bank is approximately one million watts. When discharged, the stored energy can accelerate an 8- to 40-mil-thick flyer plate into a target at a velocity up to one millimeter per microsecond (or 2240 miles per hour). Peak pressures on a target can reach 100 kilobars (1.45 million pounds per square inch), depending on the target material.

"We're now using both flat and coaxial flyer plates," remarks Dick. "Interesting and very good results have come from experiments to determine if flyer plate motion can be predicted numerically. Flyer plate motion can be predicted using a

Runge-Kutta numerical technique, and valuable information is thus provided for flyer plate and capacitor bank design."



FLAT FLYER PLATE ASSEMBLY WITH MATERIAL SAMPLE is shown in hands of lab technician Ron Crumpler (8122). Flyer plate is accelerated into target by force of magnetic repulsion. Material pressures can reach 100 kilobars.



REAR SURFACE (left) of one-inch square of aluminum after flyer plate impact on front surface.

# LIVERMORE NEWS

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SANDIA LABORATORIES

FEB. 27, 1970

## Clean Air, Land Use Subjects Of State Hearing March 7

The State Environmental Quality Study Council will conduct a hearing on March 7 on clean air and land use in the Livermore-Amador Valley. The Council recommends programs to improve California's physical environment on a long-range basis.

Bob Norvill (8233), vice president in charge of environmental affairs for the Chamber of Commerce, says the all-day hearing will start at 9:30 a.m. at Saint Charles Borromeo Church in Livermore and is open to the public. "We have intentionally scheduled it for a Saturday for the convenience of interested citizens," he notes.

Appearing on the Council will be Bruce Held of Environmental Health and Medical Services Division 8263. Bruce explains that the Study Council is concerned with the entire environment — noise, water resources, air and water pollution, waste management, odor, the whole gamut of pesticides — anything that affects the environment.

"Anytime the problem goes over county lines, we become involved," he continues. "Primarily, we learn where action needs to be taken by the State. We can also help communities by recommending spe-

cific legislation for a particular local problem or, if necessary, we might use our power to take emergency action through the Attorney General's office.

"Here in Livermore, we'll be investigating both land use and air pollution. It is generally agreed that almost all local air pollution is due to motor vehicles — 50 percent self-propagated and the remainder is that which drifts east from the Bay Area. And of the self-propagated 50 percent, one-half is of local origin and the other half from transient traffic. Future state projects such as the Del Valle reservoir, plus the two new proposed freeways in the Valley, will greatly increase transient traffic and encourage population growth.

Testifying before the Council, will be Dr. Todd Crawford (LRL), chairman of the Livermore Valley Air Pollution Study Committee; Milton Feldstein, head of the Bay Area Air Pollution Control District; a University of California expert on air pollution damage to vineyards; and representatives from the California Department of Highways, State Department of Parks and Recreation, and the County Tax Assessor's Office. After their testimony, presentations may be made by citizens in attendance. If you plan to attend, a dutch luncheon is also on the schedule.



DISCUSSING PLANS for the upcoming State Environmental Quality Study Council hearing on March 7 are Sandians (from left) Bob Norvill (8233), vice president in charge of environmental affairs for the Livermore Chamber of Commerce; Bill Moore (8332), national vice president of the Steam Power Club and a member of the local Clean Air Coordinating Committee; and Bruce Held (8263), a member of State Study Council. Hearing concerns clean air and land use in the Livermore-Amador Valley.

## Anyone for Kuala Lumpur, Taxco, Cuzco?

The LRL Recreation Association (RLRA) travel club has announced its travel program for 1970. Included are tours of the East Coast, Hawaii, Alaska, the Caribbean, Mexico, South America, the South Pacific, and Europe; a tour of the Orient will be highlighted by Expo '70.

LRL or Sandia employees (at both Albuquerque and Livermore Laboratories), and members of their immediate families, are eligible to participate by joining the RLRA. Basic tours are sponsored jointly with the Kaiser Employees Club, Shell Development Recreation Association, and the California State Employees Association.

Prices cover air, rail and sea transportation, transfers, and hotel accommodations. In some cases, meals, sightseeing tours, tips, and special features are also included.

Basic tours for this year, with approximate cost per person are:

**Alaska Coastal Cruise** — 2 weeks — from \$275. Via ship from San Francisco or Los Angeles; four departure dates: May 23, June 6, July 4, July 18.

**Alaska Inland Cruise** — 12 days — \$599.

Via air and ship; four departures: May 30, June 23, Aug. 26, Sept. 3.

**Candian Rockies and Eastern Seaboard** — 23 days — \$795. Air to Vancouver, rail to Montreal, and return by air from Washington, D.C.; two departures: May 23, Oct. 3.

### Caribbean Cruises:

1 week — from \$519; via air round trip to San Juan and aboard M.S. Fulvia; departures every Saturday in March and April, and May 2, May 9.

2 weeks — from \$685; via air to Miami Beach and aboard S.S. Statendam to Los Angeles; departure Sept. 26.

**Cradles of American History** — 16 days — \$535. Via air to Boston and return from Washington, D.C.; two departures: June 27, Sept. 26.

### Europe:

6 countries — 15 days — four departures: May 9, \$603; June 20, July 18, Aug. 15, \$673.

Leisurely tour — 22 days — five departures: May 2, \$583; May 30, \$643; June 20, July 18, Aug. 22, \$663.

9 countries — 22 days — six departures: May 30, \$753; June 27, July

18, \$763; Aug. 22, Sept. 5, \$753; Sept. 19, \$713.

**Scandinavia** — 22 days — four departures: May 23, \$873; June 13, \$903; July 25, \$923; Sept. 5, \$873.

**Grand Tour** — 4 weeks — three departures: May 30, \$903; June 27 and July 25, \$953.

### Hawaii:

**Air/Sea cruise** — 11 days — \$550; via air to Honolulu and return by ship; two departures: Oct. 12, Oct. 30. Outer island optional tour — \$165 additional.

**Waikiki** — 8 days — \$219; via air; departures every Thursday (Saturday departure, add \$30).

4 islands — 15 days — \$399; via air; departures every Saturday.

6 islands — 15 days — \$449; via air; departures every Sunday.

**Camper's special**, 4 islands — 15 days — \$345/person, party of two minimum; via air; outfitted camper included; four departures: June 8, July 13, Sept. 8, Nov. 9.

**Labor Day Mystery Cruise** — 3 days — \$145. Aboard S.S. President Cleveland;

Sept. 4-7.

**Mexico** — 15 days — \$329. Via air; visits Mexico City, Taxco, Acapulco, Puerto Vallarta, and Mazatlan; 10 departures: April 4, April 25, May 16, June 20, July 18, Aug. 22, Sept. 19, Oct. 17, Nov. 14, and Dec. 19 Christmas tour, \$399.

**New Year's Mystery Cruise** — 3 days — \$145. Aboard S.S. President Wilson; Dec. 31-Jan. 3.

**Orient (including Expo '70)** — 22 days — \$1129. Via air; visits Japan, Bangkok, Singapore, Kuala Lumpur, Hong Kong, and Manila; four departures: June 22, July 18, Aug. 16, Sept. 5.

**South America** — 22 days — \$1159. Via air; visits Rio de Janeiro, Montivideo, Buenos Aires, Santiago, Lima, Cuzco, Quito, and Bogota; departure Oct. 16.

**South Pacific** — 30 days — \$1299. Via air; visits Tahiti, New Zealand, Australia, Fiji, Samoa, and Hawaii; departure Nov. 7.

Additional information regarding the travel program may be obtained from Judith Waldmann at LRL/Livermore, ext. 7371.

## Are you up tight?

# Seat Belts Improve Your Chances

**FACT ONE:** Each year about 50,000 Americans are killed and nearly 2 million injured in automobile accidents.

**FACT TWO:** Fewer than one-fourth of American drivers use seat belts.

**FACT THREE:** A study of nearly identical accidents in 22 states showed that one-to two-thirds fewer injuries and up to four-fifths fewer deaths were incurred when seat belts were being worn.

**FACT FOUR:** The National Safety Council has found that most accidents occur within 25 miles of home.

**CONCLUSION:** Everyone ought to wear seat belts.

The above conclusion is obvious. Yet in spite of the fact that one of every four drivers will be involved in an accident (according to insurance industry figures) three out of these four drivers do not take the elementary precaution of using seat belts.

Safety Engineering Division 3351 has also compiled figures which demonstrate the protection offered by seat belts—whose use is required in government vehicles. In 1969 there were 68 accidents involving government or rented vehicles or private cars being used on company business. In 65 of those accidents, the occupants of the vehicles were wearing seat belts and only one disabling injury was incurred. In three of the accidents, occupants were not wearing belts and there were two disabling injuries. In other words, with seat belts the injury rate was about one and a half percent; without them, the rate was 66 percent.

So buckle down and buckle up . . .



**POOPED PORSCHE** — Bob Morris (3417-3), long a believer in seat belts, is now evangelical about them. Driving toward Las Vegas, N.M., he hit an ice patch on an otherwise dry road. The car left the road at a high rate of speed and in the ensuing crash the front and rear ends were virtually destroyed. Bob's left arm was broken, probably when he was thrown against the door which popped open. But his seat belt prevented his being catapulted to more serious injury through the door or windshield.

## Death



**Jimmy House**

Jimmy House of Product Acceptance Division I 7411 died Feb. 9. He was 37.

He had worked at Sandia since June 1954.

Survivors include his widow and four children.

The LAB NEWS regrets that in the last issue a picture of William E. Price, Jr., was used to illustrate the obituary of William T. Price, Jr.

## Speakers

J. L. Tishhauser (9420), "A Survey of Professional Assignments in Computing at Sandia Laboratories," Fifth Annual Educational Meeting of the Rio Grande Chapter, Association for Computing Machinery, Feb. 6, Portales.

L. M. Barker and R. E. Hollenbach (both 5161), "Shock Wave Studies in PMMA, Fused Silica and Sapphire," Lawrence Radiation Laboratory, Jan. 27, Livermore.

R. T. Johnson, Jr. (5132), "New Neutron Detection Techniques Using Induced Radioactivity in Semiconductors," AFWL Weekly Seminar, Feb. 16, Kirtland AFB.

M. J. Davis (5530), "Electrochemical Study of Stress Corrosion Cracking of Uranium Alloys," 26th Annual NACE Conference, March 2-6, Philadelphia.

R. E. Tate (9322), "Aeronautical Engineering As a Career," two Aviation Mathematics classes, Jan. 12, Sandia High School.

W. J. Patterson (9327), "Terradynamics," Albuquerque Section of the Society for Experimental Stress Analysis, Jan. 28.

D. F. McVey, Irving Auerbach, and D. D. McBride (all 9328), "Some Observations on the Influence of Graphite Microstructure on Ablation Performance," Annual ASME-UNM Symposium on Carbon Composites, Jan. 30.

L. M. Barker (5161), "Advanced Experimental Techniques," UNM lecture, Feb. 17.

N. J. DeLollis (5333), "What Is a Clean Surface?" New Mexico Chapter of SAMPE, Feb. 23, Albuquerque.

K. B. Kimball (9123), "A Subterranean Telemetry System for Earth Motion Data Acquisition," Instrumentation for Nuclear Weapons Effects Simulation Symposium, Feb. 15, Kirtland AFB.

D. R. Breeding (9123), "Instrumentation, Some Test and Field Results," Instrumentation for Nuclear Weapons Effects Simulation Symposium, March 12, Kirtland AFB.

## Seminar on Naval Reserve Research Set for March 1-13

The Navy's fifth Reserve Seminar in Applied Research will be held at Sandia Base March 1-13 with a number of Sandia Laboratories executives participating in the program. Sponsored by the Office of Naval Research, the seminar's host unit is Naval Reserve Research Company 8-7. Cmdr. Cal Rogers (7292) is commanding officer of the unit.

Lt. Cmdr. Bob Baker (2651) is program chairman of the seminar.

The 70 Naval Reserve officers attending the seminar will become familiar with the activities of Sandia Laboratories, Los Alamos Scientific Laboratory, Air Force Weapons Laboratory, KAFB, NMIMT, UNM, Lovelace Foundation and AEC/ALO.

Sandians participating in the program include President John Hornbeck who will discuss the Laboratories mission; Lou Hopkins (9500), isotopic space power systems; Neal Vinson (1613), intrusion detections; Bob Peurifoy (1550), Poseidon firing system; and Don Jelinek (2625), radar fuzing.

Charles Tapp (2610), applied research for the neutron generator; Jerry Hood (2635), radiation hardening of electronic components, Dave Kendall (2444), quality evaluation system testing; and Bill Gardner (1500), advanced systems concepts.

Alan Pope (9300), earth penetrating weapons; Carter Broyles (9110), underground testing; Ben Benjamin (9123), test site instrumentation for the Milrow event; Al Narath (5100), dynamic materials response research; and Hap Stoller (5310), composite materials.



**GUS SIMMONS**

To Rolamite Technology Inc.

## Gus Simmons Named Director for Rolamite

Gus Simmons (100) has left Sandia Laboratories to become director of research and development for Rolamite Technology, Inc.

This firm was formed to develop commercial applications for the rolamite principle invented by Donald Wilkes while he was with Sandia. Wilkes is now vice president of the rolamite firm.

Gus will be in charge of overall operation of the Albuquerque office. The firm also has an office in San Francisco. He was with Sandia 15 years.

## Los Alamos Reunion

Men and women stationed in Los Alamos during World War II are reminded of the veterans reunion planned there for June 26-28. Charles Barncord (7600) is coordinator for Albuquerque.

Registration on the 26th will be followed by a meeting in the Civic Auditorium and a dinner. A barbecue is planned for June 27. In addition, veterans and their families are invited to visit facilities of Los Alamos Scientific Laboratory and other installations in Los Alamos. (LASL will hold Family Days on June 27 and 28 as part of the 25th anniversary of the birth of the Atomic Age.)

For further information write to Reunion, P.O. Box 663, Los Alamos, N.M. 87544.

## Promotions

Jim Armijo (3520) to Security Inspector  
Clifford Condit (4231) to Technician  
Louis Gallegos (3520) to Security Inspector  
James Lyons (3520) to Security Inspector  
Sylvia Martinez (1520) to Secretary  
Theodore Martinez (3428) to Mail Clerk  
Dora Montoya (3256) to Secretarial Steno  
Conrado Otero (4221) to Helper  
Luther Otero (3520) to Security Inspector  
Linda Parmeter (3256) to Secretarial Steno  
Claudia Rimer (4337) to Teletype Operator  
Annabelle Sanchez (3256) to Secretarial Steno  
Alfonso Santistevan (3520) to Security Inspector  
Frank Zamora (4518) to Laborer  
Richard Chavez (3428) to Mail Clerk  
Jesus Sanchez (3428) to Mail Clerk



VIP's VISIT LABS — Listening to Bill Snyder, manager of Simulation Sciences Research Department 5220, tell all about HERMES II flash X-ray facility are members of the Military Liaison Committee and MLC Chairman Carl Walske, Vice Admiral Mustin and Maj. Gen. Nye of DASA, Maj. Gen. Giller, DMA, and H. C. Donnelly, Manager AEC Albuquerque Operations Office. The visitors received briefings on Labs programs.

# Service Awards

## 25 Years

Albert Rizzoli  
7432



## 20 Years



Louis Aragon  
4131



William Denison  
7421



Hubert Hanen  
2452



Frank Kohut  
7415



Walter Martin  
4512



Harold Neuhaus  
4518



Robert Orr  
4512



David Reed  
4231



Jack Renaud  
8234



Frieda Salazar  
3251



Gene Springer  
8323



Dean Wise  
4231

## 15 Years



Dorothy Bliss  
3428



Donovan Browning  
9132



Lawrence Lodge  
5513



Alton Meador  
2452



William Owens  
1612



Robert Seavy  
9235



Paul Seward  
4612



Howard Stuart  
2492

## 10 Years

Charles Daniel 5131, Marlin Aker 9133, Raymond Bland 5332, Doyle Bakr 8153, and Alexander Hachigian 1613.

# Take Note

The Sandia Base Commander's Invitational High Power Rifle Match will be held Saturday, March 14. Interested Laboratories employees should call Dave Overmier (9116), 268-4992. Service rifles will be available to those who wish to participate. The Sandia Base Rifle Range is open for practice on Thursdays, 11 a.m. to 5 p.m.

Philip Thacher (5153) and Errol Eer-Nisse (5112) are the next two speakers scheduled for the 5100 Staff Seminar. The meetings are held on Tuesdays at 8:30 a.m. in Rm. 201 of Bldg. 806. On March 3 Mr. Thacher will present "Electrooptical g Coefficients and Optical Voltmeters." Mr. EerNisse will discuss "Carrier Trapping and Recombination in Avalanche Microwave Sources" on March 10.

Western Electric will sponsor a television first — live coverage of a total eclipse of the sun — on Saturday, March 7, over the CBS-TV network. The special news report, "Earth in the Shadow of the Moon — The Solar Eclipse" will be broadcast from 11 a.m. to 12 noon (MST). The next eclipse of such magnitude will not occur until the year 2017. Sandia is responsible for some of the instrumentation of a LASL plane to be used in studies of the eclipse. (Note: If you choose to observe the eclipse directly, be sure not to gaze at the sun — severe retinal damage could result).

Morris Cohen, president of the American Society of Metals and Ford Professor of Materials Science and Engineering at the Massachusetts Institute of Technology, will be the featured speaker at a meeting of the chapter of ASM on Friday, March 6. His topic will be "Recent Developments in Phase Transformations." Anyone interested in attending should contact Dick Rohde (5133), ext. 4-4026. Among Sandians active in the ASM are Mark Davis (5530), chapter chairman; Dick Erickson (5321), vice chairman; and Dennis Mottern (9522), secretary.

A number of Sandians will display their collections when the Albuquerque Coin Club holds its annual show Feb. 28 and March 1 at Holiday Inn-East.

A special display of early United States coins will feature a 1792 George Washington 50-cent copper piece, one of only seven minted. This particular coin was believed presented to President Washington who had provided some of his own copperware for metal needed at the mint. Other exhibits are collections of mint errors, various foreign coins, etc.

The show hours are 9 a.m. to 9 p.m. on Saturday and 10 a.m. to 5 p.m. on Sunday. No admission charge.

Interested in music for recreation? The Albuquerque Parks and Recreation Department and the Albuquerque Public Schools jointly sponsor such a program for adults consisting of the City Parks Band, the Civic Chorus, and the Albuquerque Strings.

The three groups are looking for new members — no fees or auditions and the music is furnished. Interested persons are invited to attend a rehearsal, held weekly in the cafeteria of Monte Vista Elementary School, Richmond NE and Monte Vista.

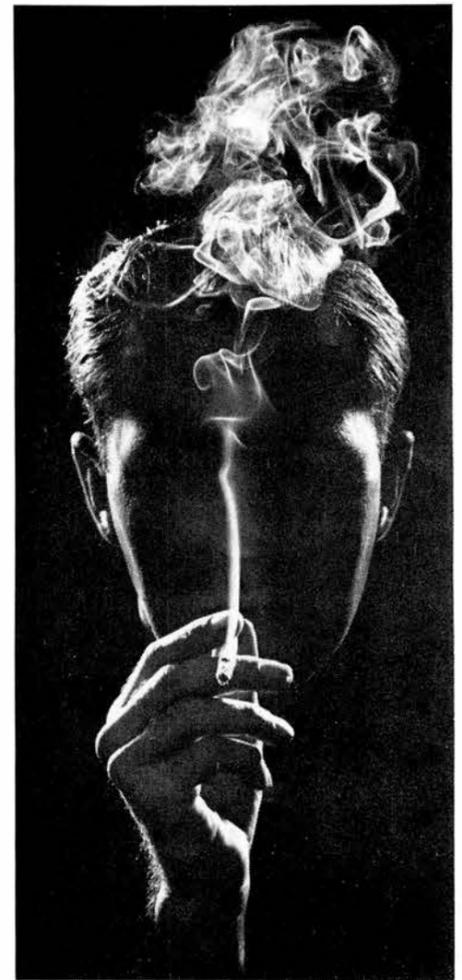
The Parks Band meets on Monday, 7-9 p.m., Civic Chorus on Tuesday, 7:30-9:30 p.m., and Albuquerque Strings on Wednesday, 7-9 p.m. Instrumentalists are asked to bring their own instruments and music stands; some instruments are available on loan.

The groups give free public concerts (separately and jointly) and perform for various institutions. Robert W. Wolfe is the conductor.

The annual New Mexico Arts and Crafts Fair is always a popular event for both spectators and those who exhibit.

Artists who have never exhibited at the fair and who are interested in renting a booth this year should submit applications no later than March 2 to the fair committee. Information can be obtained by calling 298-1160.

Jim Marsh, supervisor of Classification Division 3414, discussed Sandia's classification education program, showed a movie "Classification," and displayed a new classification brochure during a Feb. 25 meeting at Western Electric's Defense Activities office in New York City. The meeting was attended by WE and BTL officials who are concerned with security and classification activities at their locations.



# Be a Quitter

## LAB NEWS

PAGE FIVE

FEB. 27, 1970

### SHOPPING CENTER

#### CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday. A maximum of 125 ads will be accepted for each issue.

#### RULES

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

#### FOR SALE

#### MISCELLANEOUS

DYNA PAT - 4 Preamp Stereo 120 Amp & FM - 3A Tuner, \$350. with orig. cartons, books & warranties. Also, 1 pr. Reel/linear TV speaker systems, cost \$480. will sell for \$325. Staley, 898-0279.

24" GIRL'S BIKE, \$15; 24" boy's bike, needs some work, \$7.50, both for \$20. Martin, 256-7015.

DOG HOUSE, new \$20, sell for \$15. Wigley, 299-3138.

DANISH MODERN WALNUT, 9-dwr. dresser w/ adjustable mirror. Trollinger, 268-4132.

PING PONG TABLE, net & paddles, \$20 or best offer. Sanchez, 344-5390.

ARGUS slide camera, \$15; bathinette, \$6; auto-baby swing, \$6. Davis, 268-0724.

COUGAR CAMPER pickup shell, fits long wide bed, \$150. Prekker, 299-6468.

AKC reg. German Shepherd puppies from excellent stock, free pedigree & brochure. Villella, 298-7955.

GE canister vacuum cleaner, \$20; swap: brown wiglet for older bicycle in working condition. Martin, 256-2955 after 2:30 p.m.

GUITAR & amplifier, make offer. Halsey, 299-6418.

BORDER COLLIE, 2 yrs. old, good watch dog, needs to be in country. Hoban, 255-9254.

WILL GIVE 2 brass cases for one 38 special nickel plated brass case, any amount. Mosteller, 256-3227.

CAMPING EQUIPMENT, 50-lb. cooler, 2-burner stove, folding table, 3.5-gal. watercan, kerosene lantern, stove-top oven. Meyer, 344-3094.

DINING SET, 6 chairs, extra leaves, pads, china hutch, buffet, lt. finish. mfg. Bassett, \$375 or best offer. Carlj, 298-9271.

2 1/2 DOZ. new wood target arrows, 25"; new Sun-beam cord/cordless shaver. Williams, 298-2671.

GARAGE SALE, 2 families, RCA washer, 21" TV, \$10 ea., clothes, toys, misc. 2/28-3/1, 9 a.m.-4 p.m., 1909 Dakota NE. Yungst, 268-2896.

TWO 14" Keystone maps for Ford, Dodge, Plymouth, Mercury or Cougar, \$50. Chavez, 242-7889 after 4.

HAMS, Heathkit mobile xmtr w/pwr supply, Gonset converter, model 19 Teletype, EICO signal generator; aquariums w/fish, etc. Cave, 299-5066.

CLOTHES LINE POLES. Garcia, 256-7606.

WALK-IN CAMPER, sleeps 4, less than 1 yr. old, \$550 or trade for tractor. Bluett, 282-3897.

TABLE SET, 2 step tables, 1 end table, mahogany finish, \$20; end table, mahogany finish, \$5; trunk, 34" x 1, 23 1/2" H, 20" D, \$10. Stark, 299-5953.

CAMPER SHELL, Sport Liner for wide body pickup, lg. windows, \$125. Townsend, 898-4625 after 6:30.

RAPID READING COURSE, Columbia University, 13 lesson portfolios, reading pacer, \$25; radio-record player comb., Majestic console, \$30. Bodine, 296-3620.

PIANO, Bogart upright, \$175. Robnett, 299-9192.

BAR-B-Q BARREL, 3 stools, \$15; 5-pc. breakfast set, \$20; sewing machine head, \$20; Comptons encyclopedia, \$5; dress form \$7.50. Herrmann, 264-6747.

B&W 23" RCA Victor console on swivel base. Eden, 298-5182.

19' TRAILER, fully self-contained, sleeps 6, includes 70 reg., load leveler hitch, mirrors, jacks, etc., \$1495. Guerin, 299-4677.

CONSOLE MODEL FM/AM radio stereo phono., Jensen speakers, \$60; 2-wheel utility trailer, \$20; shop vacuum, 27 gal. w/dolly, \$18. Carnicom, 282-3421.

GAS STOVE, apt. size, white, \$30; child's pool table, \$6.50. Heames, 255-2296.

CRAFTSMAN SABER SAW, \$15. Wymer, 299-0717.

REAL ESTATE

2-BDR. ADOBE, dbl. car garage, 2 fireplaces, vigas, brick floors, electric kitchen. Hwy. 47, 1 or 1 1/2 acres. Connally 1-865-7607.

CORRALES ADOBE, 4 yrs. old, 2400 sq. ft., 1 acre, 3-bdr., 2 baths, den fireplace, lg. kitchen w/built-ins, garage, carpets, drapes, \$32,500. Silva, 898-2518.

SELL OR TRADE: 2 clear residential lots in North Valley, want late model SC travel trailer. Marmion, 298-0238.

3-BDR. BRICK house, 2708 Alvarado Dr. NE, \$1000 below appraisal. Villa, 298-0435.

3 ACRES, \$3000 per acre, no down payment, Hwy. 47 south 20 miles. Davis, 636-2874.

3-BDR., 1 1/2 baths, den, fp, carpeted, drapes, furnished, central heat, AC, sprinklers; also 2-bdr. rental unit furnished, walled, \$19,500 FHA. Chavez, 243-0646, 1223 Stover SW.

HALF-ACRE LOT in mountain foothills, Cenaroca subdivision, w/view of city, appraised at \$6500, discount for cash. Daniel 296-3676.

CARS AND TRUCKS

'60 EL CAMINO pickup, 347 engine, R&H, AT. Yarbrough, 255-4087.

'66 BUICK Riviera, all power, many extras, \$300 below book. Morgan, 299-8726.

'63 SCOUT, 4-wd, long cab, extra tanks, skid plates. Kinoshita, 9412 Snow Hts. NE, 299-6491.

SIDE-SWIPE '56 CHEV., 6-cyl. engine, stick trans., etc. in good condition. Burke, 255-9169.

'63 COMET conv., new top, new paint, new tires, \$595. McGinnis 898-3170.

'57 MERCEDES BENZ 300 sedan, nearly new AT, \$1100. Mahaffey, 265-0798.

'63 BUICK 4-dr., PS, AC, 49,000 miles, \$595. Lassiter, 268-1039.

'59 VW, black, 2 new tires. Hill, 299-7813 after 5.

'60 Corvette w/HT, 327 engine, 4-spd. Hurst. Snelling, 268-5895.

'59 VOLVO, \$295. Holman, 298-8694.

WANTED

CAMPING TRAILER capable of sleeping at least 4 people. Wehrle, 255-4667.

OLD console TV cabinets, must have doors. Marmion, 298-0238.

BABY SITTER wanted in North Valley home for two small children, five days per week. Bowerman, 243-3660.

CLEAN VOLKSWAGEN; guitar (non-electric). Westman, 255-6048.

ADULT SIZE man's bicycle. Pace, 298-1112.

TWO PERSONS to share private plane expenses for a flight to the BD factory in Ohio, to test fly the BD-4. Hawk, 265-2228.

4 or 5-DRAWER FILE CABINET. Zuczkiew, 268-3105.

HOME in Holiday Park or similar neighborhood; medium priced, 3 to 4-bdr., low interest loan. McBride, 299-4347.

BICYCLE, boy's 24" frame or other suitable for a 6-year-old. Lung, 296-5248.

2-MAN CAR POOL from Basque Farms. Opland, 636-2012.

TABLE or radial saw & wood working tools and equipment. Petersen, 265-1122 after 5.

SMALL BIKE, 2-wheeler. Corli, 255-1186.

ANTIQUA CUT GLASS. Thunborg, 898-0863.

# SOUL SESSION

Diane Kopp (2324)



**Coronado Club - Tomorrow Night - 8:30-12:30**

## 50 Spaces Left On Puerto Vallarta Trip Scheduled May 8-11

With the first Coronado Club trip to Mexico May 5-8 completely filled, space on the second tour is rapidly filling up, according to Chet Fornero (4335), Club travel director. Only 50 seats remain for the second flight, and it's still a first come-first served situation, Chet says.

The second tour dates have been changed from May 11-14 to May 8-11 which encompasses a weekend, Chet says. This may be more appealing to some people now booked for the first trip. Anyone desiring to change schedules should call the Club office.

The four-day travel package to Puerto Vallarta costs \$149 and includes three nights at the Posada Vallarta resort hotel plus breakfasts and dinner while there.

Puerto Vallarta is on the Pacific coast of Mexico about halfway between Mazatlan and Acapulco. Activities in the area include swimming, deep sea fishing, jungle tours, horseback riding and jeep rental.

Drawings will be held in-flight and one lucky traveler during each tour will receive a free trip.

### Coronado Club Activities

## Soul Session Manana; Lobster Dinner Set March 14 at Club

Popularity has decreed that the Soul Sessions be monthly events at the Coronado Club. Tomorrow night's affair will be a repeat of the successful formula that sees up to 300 party people falling in for a tremendous evening of dancing to the big modern rock sounds of Rod King and the Soul Knights. Social hour prices will be in effect tomorrow night from 8:30 to 12:30. Pizzas will be available from the Club kitchen. Admission is free to members, 50 cents for guests.

### New England Seafood Dinner

Monday, March 2, is the deadline for picking up tickets (\$6 for members, \$6.50 for guests) for the Club's New England Seafood Dinner, Saturday, March 14. This allows for those lovely lobsters to fly in from Maine special for the occasion. Crab cocktail plus baked potato with sour cream will round out the menu. A wine taste will start at 6:30 p.m., dinner will be served at 7:30 and dancing to Gappy Maestas and the orchestra starts at 9 p.m.

### Social Hours

Tonight the Club's famous chuckwagon roast beef will be the buffet feature while Rex Elder holds the bandstand. Social hours start right after work on Friday evenings and special prices are in effect until 9 p.m. The buffet is served from 6 to 8 p.m. while the band plays for dancing from 6 to 9 p.m. Then the crowd gathers in the main lounge for a sing-along with Pat Reich and piano.

On Friday, March 6, southern fried chicken is on the menu while The Good Times will play for dancing.

Tommy Kelly and the smiling Irishmen return to the bandstand for the Friday, March 13, social hour. Mexican food will be the buffet feature.

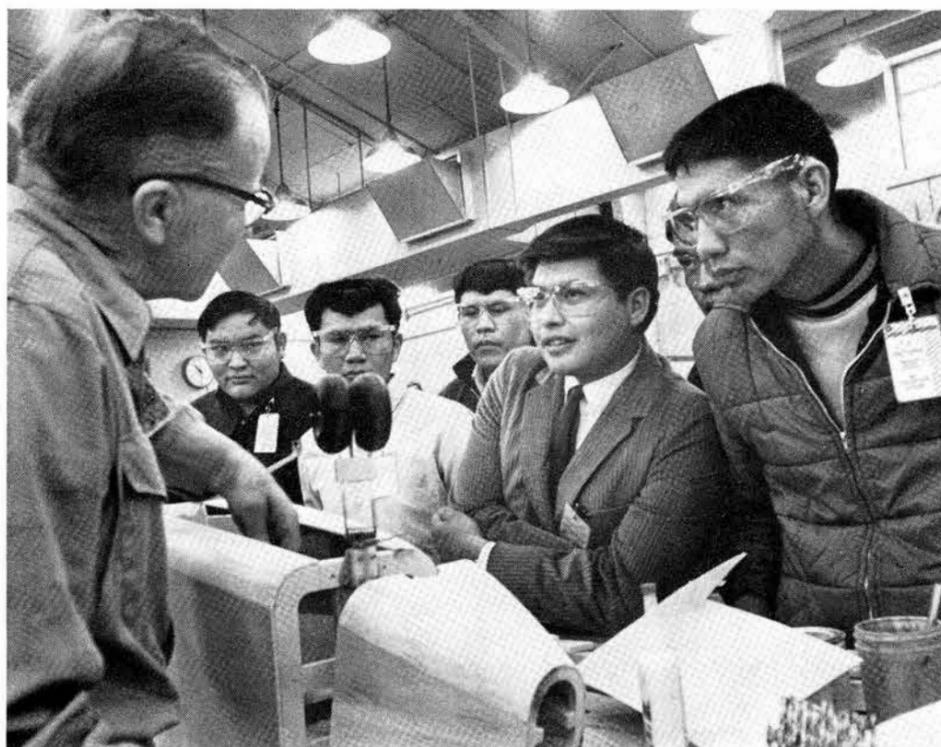
In the meantime, the mid-week social hours continue on Tuesday evenings from 5 to 8 p.m.

### Bridge

Coronado Ladies bridge meets Thursday, March 5 at 1 p.m. Newcomers are welcome. Call 299-9168 or 299-1025 for information. Duplicate bridge meets Tuesdays at 7 p.m.

### Sanado Club

Sanado Woman's Club will meet Tuesday, March 10, for the monthly sherry luncheon. Mr. Blackwell, Hollywood designer, will discuss fashions.

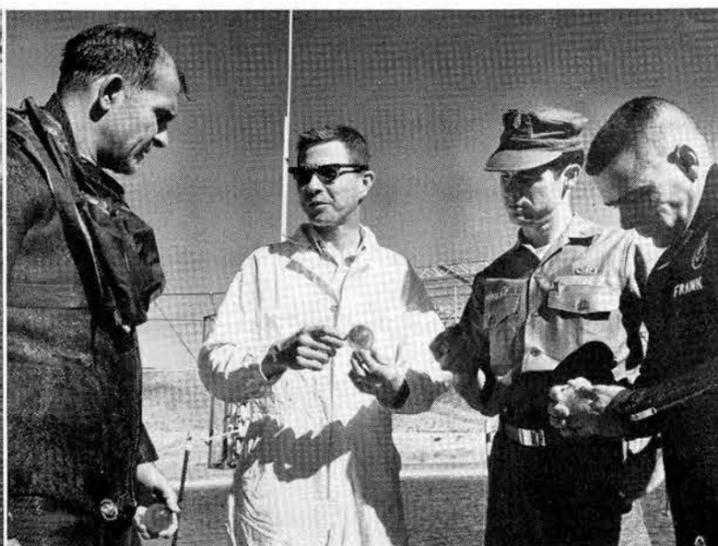
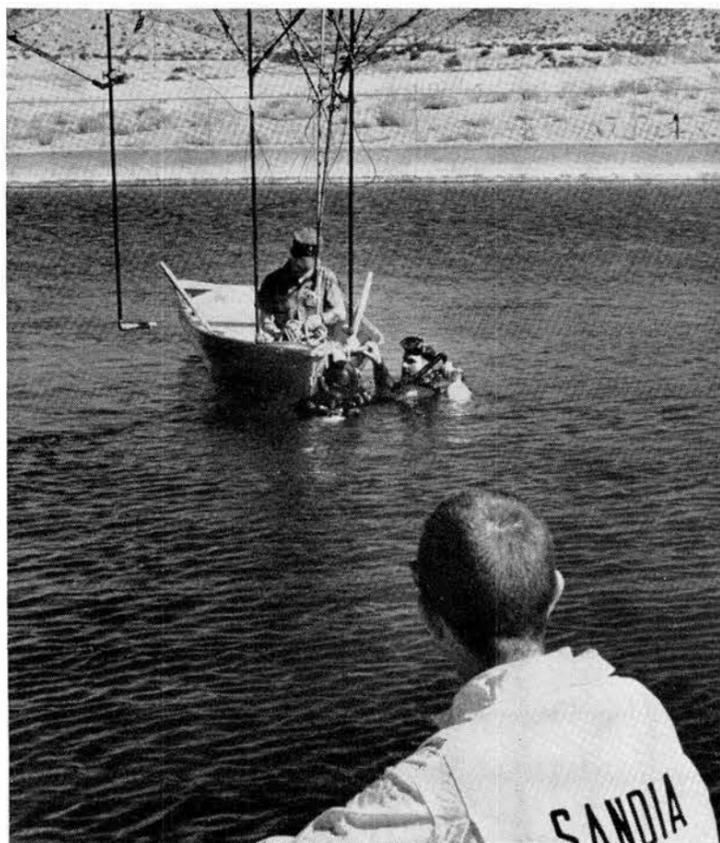


**TWENTY METALWORKING** students from the Albuquerque Indian School visited Sandia's shops recently to see techniques and equipment used in industry. Karl McGinnis of the Pattern Shop 4232-3 shows the detail required in a test model. All the students are American Indians — but they still had to complete a "Declaration of U.S. Citizenship" form.

## SAFETY



is remembering what a safety shoe can do for you



**WOULD YOU BELIEVE** Navy frogmen making dives in Coyote Canyon? Yep, it's true. An artificial pond, 250 feet long by 200 feet wide and 30 feet deep, currently is being used for underwater explosives studies. Members of a six-man Navy Explosive Ordnance Demolition (EOD) team, stationed at Sandia Base, are recovering test items. Above, Sandia's Ken Bell (7343), second from left, discusses recovered objects. Divers are Navy Chiefs Wilbur Wright (left) and Frank Santino. Chief Don Tyner (in fatigues) also is a member of the EOD team.