



# SANDIA LAB NEWS

VOL. 21, NO. 13, JUNE 20, 1969

## Warren Corgan Joins Sandia as Comptroller 4100

Warren Corgan, currently Manager, Headquarters Data Processing Services in Western Electric Company's Finance Division, will join Sandia Laboratories July 1 and share Comptroller (4100) duties with Robert Luckey until Aug. 1. Mr. Luckey will be on special assignment during August and will retire Sept. 2.

Mr. Corgan assumed his present position in June 1966 following a number of engineering, financial, production, and systems responsibilities at several WE locations. He holds a BS degree in mathematics from Fordham University and did graduate electrical engineering work at Northeastern University. He was awarded a Sloan Fellowship in August 1965 and was placed on special assignment by WE to attend a year-long course in Advanced Management at Stanford University in Palo Alto, Calif.

He is a member of the American Production and Inventory Control Society, the Institute of Electrical and Electronics Engineers and its Professional Group on Electronic Computers. He is the author of a number of technical papers on computers, computer programming, and scientific inventory management.

He is married and has three sons and three daughters.



"How you respond to technical challenge at these Laboratories is the measure of how Sandia develops" — John Hornbeck

### Final Class Honored

## 28 Finish Tech Development Program

"Congratulations," President John Hornbeck told 28 graduating members of Sandia's final class in the Technical Development Program. The men were attending a luncheon at the Coronado Club honoring them for completion of two years of advanced work at the University of New Mexico.

"We're glad to have you join us full time," President Hornbeck continued. (TDP participants attended class half days, worked half days for the two-year period.) Sandia needs your contribution.

"It seems to me the world is not getting any simpler. It's the other way around.

Things are getting more and more complex. If you look at the past 15 years and project the rate of change into future changes, the picture becomes very exciting.

"We have a great deal of independence at Sandia in what we do," he said, "particularly in the area of exploratory research . . . and we must do a first class job. This means we must have input from everyone."

Glenn Fowler (9000), chairman of Sandia's Education Committee, discussing the nine-year history of the Technical Development Program, noted "the original objectives of the program have been achieved remarkably well." Some 406 Sandians have completed the program which aimed at "providing new technical staff members with additional background and knowledge in modern analytical methods and basic scientific concepts."

TDP has been replaced by three new

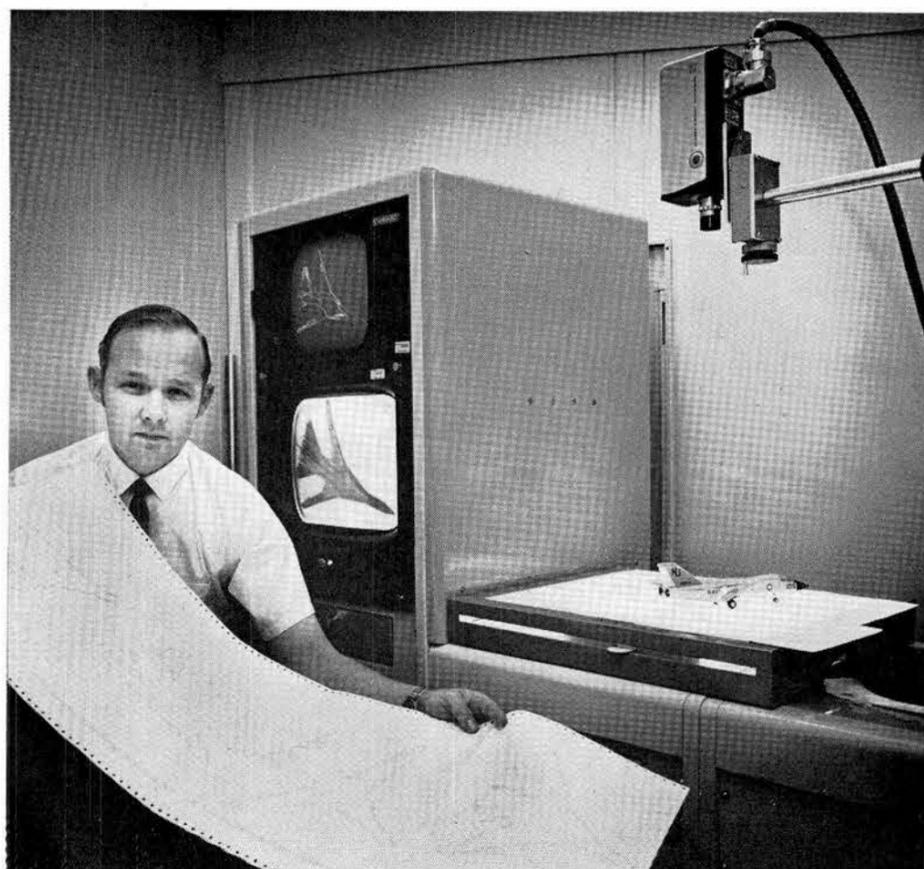
(Continued on Page Six)

## Bond Purchases Now \$1,371,480

A total of 337 Sandians signed up for payroll deduction for U. S. Savings Bonds during the recent campaign to raise the Laboratories' overall participation to 83 percent.

The increase of \$7849 per month brings the total to \$114,290 in Savings Bonds purchased each month by Sandians. The annual total is \$1,371,480.

In addition to the 337 new bond buyers, 456 Sandians increased their monthly purchases of Savings Bonds.



DATA REDUCTION of graphic materials has been made considerably cheaper through development of the Sandia Image Digitizer-II. Developer Bob Cover (1724) displays the computer readout version of an F-111 model aircraft. The F-111 model is viewed by a TV camera (right), reproduced in analog form (lower TV screen), converted to digital outline (upper screen) and then relayed to a computer for analysis, simulation, or other programmed treatment.

## 'Eye' for Computer Aids Research; Saves Laboratories Time, Money

The Sandia Image Digitizer (SID-II) in Computer Science Division 1724 has made possible an 87 percent cost savings in a data reduction procedure.

SID-II is the second in a series of image digitizers originally proposed by Don Morrison and designed and developed by Bob Cover (both 1724). SID-II converts photographs or other graphic material into digital data for a computer. Using a closed-circuit television system, the instrument scans and converts graphic material into a binary code which is then relayed directly into a computer. The digitizing operation takes less than one-quarter of a second.

Formerly, such information was digitized manually in an operation which was time consuming and error-prone. Photographs of oscilloscope waveforms, for instance, were digitized by using a coordinate digitizer in which the operator moved a stylus along the contour of the waveform and depressed a button each time he wanted to record a point on the curve.

Charles Barncord (7600), chairman of the Cost Improvement Committee, cited Bob, Russ Acton (5416), and Bernie Stiefeld (5425) for the savings realized in digitizing information from oscilloscope trace photographs taken in connection with a thermal properties experiment run by High Temperature Materials and Properties Division 5416.

In this experiment, about 100 photographs are reduced each week to binary form for computer analysis. This operation formerly took about seven minutes per picture, but SID-II handles the job in under 55 seconds. In a year, the savings amount

to 87 percent of the total cost, or more than \$3500.

There are commercial systems on the market which can perform similar operations but they are considerably more expensive and not nearly as fast as the Sandia-developed version.

The SID system is versatile and has proven useful in other applications: in performing waveform analysis and pattern recognition work; in performing analysis of the distortion of cylinders and cones after explosive deformation experiments; and in providing data which could be used for computer simulated wind tunnel studies of aerodynamic shapes.

"SID-II is really just the eye of a computer," says Bob. With it the computer can "see" photographs, graphs, strip-chart recordings, engineering drawings, schematics or handwritten characters, and shapes of models placed in its field of view. Since SID-II cannot recognize tonal values but only blacks and whites, the image is recorded only in outline form. The information is speedily and accurately fed into the computer and is permanently available for retrieval at a later time.

Programs written by Division 1724 for the CDC 160A computer link the data to an outline-plotting device. The shape can then be computer analyzed for topological or other characteristics useful in pattern recognition.

The system prototype was built about two years ago and SID-II was completed this past fall. SID-III is currently being assembled and more advanced versions are in the planning stage.



OFFICERS of the New Mexico Chapter of the American Society of Certified Engineering Technicians examine Governor Cargo's proclamation that next week will be "National Engineering Technicians Week" in New Mexico. From left are Len Strawderman (7651), parliamentarian; Calvin Smith (2314), president elect; Harold Myers (7332), secretary-treasurer; and Bill Yates (7623), vice president.

### Sandians Participate

## Governor Proclaims June 22-28 'Nat'l Engineering Technician Week'

Next week, June 22-28, will be National Engineering Technician Week in New Mexico. A group of Sandians, members of the New Mexico Chapter of the American Society of Certified Engineering Technicians (ASCET), were in Santa Fe recently when Governor David Cargo issued the proclamation.

"Since recognition of the engineering technician as a professional member of the scientific-engineering team is one of our objectives, we are particularly pleased with this event," says Calvin Smith (2314), president elect of the New Mexico Chapter of ASCET.

The local chapter, organized in June 1967, meets the last Monday of each month at the East Central First National Bank hospitality room and presents a varied program of top technical speakers. The group promotes professionalism and technical growth, and urges all technicians to become certified.

At Sandia Laboratories, there are some 1200 technicians who perform an important role in research and development activities. Their job is to translate ideas into hardware, to provide the instrumentation and data which form the basis for project decisions, to conduct experiments,

to operate complex and unique equipment, to field test operations, and to perform myriad other far-ranging and ever-changing tasks.

"This kind of responsibility throughout industry prompted the formation of ASCET in 1953," Calvin says. "The Society also grew out of a concern that there were no universally recognized criteria to provide recognition and identification of the technician."

To become certified, the technician provides a detailed description of the jobs he has performed and his level of technical attainment and responsibility in them. References are required from one to three engineers (preferably registered professional engineers) depending on the grade of membership sought. The examining board bases its decisions on the applicant's record, his endorsements, and the results of examinations that may be required. Certification is made in three classes — junior engineering technician, engineering technician, and senior engineering technician.

Other Sandians who are officers in the local ASCET chapter include Bill Yates (7623), vice president; Harold Myers (7332), secretary-treasurer; and Len Strawderman (7651), parliamentarian.

## Sandia Photographers Take First, Second In Industrial Show

A color photograph titled "Electron Beam Target" by Louis Erne (3455-1) was selected first place winner of the On the Job-Color Division competition at the recent 10th annual conference of the Industrial Photographers of the Southwest (IPSW).

Joe Laval's (3455-1) color photo "Micro Machined Parts" was named second place winner of that competition.

Elected first vice president of IPSW for the coming year was Richard Hodges (3455-1).

The election and photo judging took place at the annual meeting in El Paso, Texas. Prints selected from among those entered by Sandians accounted for about 15 percent of the 200 photographs in the exhibit. Sandia photographers with prints selected for the exhibit are Louis Erne, Joe Laval, Richard Hodges, David Tafoya, Oscar Goodwin, James Pennington, and Bob Ezell (all 3455-1).

Louis Erne has just completed his second term as president of IPSW.

## Local Universities Confer Degrees On Sandia Employee-Students



Alice Miner



Joe Chavez



Manuel Vigil



Jimmie Smith

Bachelor's and Master's degrees were conferred upon a number of Sandians during recent commencement exercises at the University of New Mexico and the University of Albuquerque.

Most of the student-employees completed their studies under Sandia's Educational Aids Plan.

Those receiving Master's degrees from UNM were:

Alice Miner (4336), Master of Business Administration. She also received her BBA at UNM.

Joe Chavez (9426), Master of Business Administration. His BBA was also from UNM.

Manuel Vigil (7343), MS in mechanical engineering. He earned his BS in ME from New Mexico State University.

Jimmie Smith (9424), MS in mechanical engineering. His Bachelor's in mathematics was conferred at Texas Tech.

Alan Chodorow (5221), MS in electrical engineering. He received his Bachelor's degree in marine engineering from the U. S. Naval Academy.

William Clement (2352), MS in electric-



Alan Chodorow



William Clement

al engineering. His BS in EE was awarded at the University of Nebraska.

Those receiving Bachelor's degrees from the University of New Mexico were: Charles Arning (7612), BA in industrial arts education; Floyd Braaten (5412), BA in chemistry; Cherry Lou Burns (3432), BA in journalism; Frank Conrad (7434), BS in chemistry; John Kinney (2326), BS in electrical engineering; Robert Schowers (2443), BS in electrical engineering.

Those receiving Bachelor's degrees from the University of Albuquerque were: Charles Hills (5422), BS in mathematics; Arnold Jenkins (7652), BS in business administration; Arthur Lynch (5224), BS in chemistry; and Tom Tassia (2613), BS in mathematics.



Byron Stewart



Bennie Gallegos

## Sandians Appointed to Serve on Human Rights Commission

Two Sandians will serve on the newly-created New Mexico State Human Rights Commission. Appointed by Governor David Cargo, the Sandians are Byron Stewart, who has taken leave of absence to serve as executive director of the commission, and Bennie Gallegos, who will serve as vice chairman through December 1970. First meeting of the five-man group was held in Santa Fe last week.

Byron, an order analyst in Tester Fabrication Division 4233, joined Sandia in March 1951. He served two years as president of the Office and Professional Employees International Union, Local 251, AFL-CIO.

Bennie, an order analyst in Stock and Material Control Division 4212, has worked at Sandia 21 years. He has been active in the Republican party, serving most recently as chairman of the labor liaison committee.

Purpose of the Human Rights Commission is to investigate and resolve complaints concerning discrimination or segregation in employment, housing or public accommodations. The commission was created in the last legislature as part of the New Mexico Human Rights Act and replaces the Fair Employment Practices Commission.

## Events Calendar

June 20-21—Civic Light Opera production of "Kismet," UNM Popejoy Hall. Matinee on June 22.

June 20-22, 27-29—"The Importance of Being Earnest," Corrales Adobe Theatre.

June 21—June Music Festival, Fine Arts Quartet and others. Albuquerque Little Theatre.

June 21-22—Backpack to Horsethief Meadows in the Pecos Wilderness. N.M. Mountain Club, leader Mary Dey, tel. 256-1970. Car camp in Santa Clara Canyon, leader Don Peterson, tel. 299-4714.

June 23, 30—"Lecture Under the Stars" series, UNM Administration Bldg.

June 24—San Juan's Day dances at Taos, San Juan, Isleta, Cochiti, Santa Ana, Laguna, and Acoma Pueblos.

June 26—San Pedro's Day dances at most Pueblos.

June 28-29—Truchas Peak area. N.M. Mountain Club, leader Bob Babb, tel. 256-9016.

June 28—YWCA trip to Santa Fe to see "The Lion in Winter" at Greer Garson Theatre. For information, tel. 247-8841.

July 3-6—"The Rope Dancers." Old Town Studio, 1208 Rio Grande NW.

July 4—Annual fireworks display. University Stadium, 8:15.

### Variable Annuity Unit Value

For June 1969	\$1.770
May 1969 Value	\$1.738
1968 Average Value	\$1.647

## SANDIA LAB NEWS

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Anti  
Matter



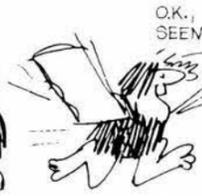
IT WORKS!  
IT WORKS!



ALL I NEED NOW  
IS A NAME FOR IT

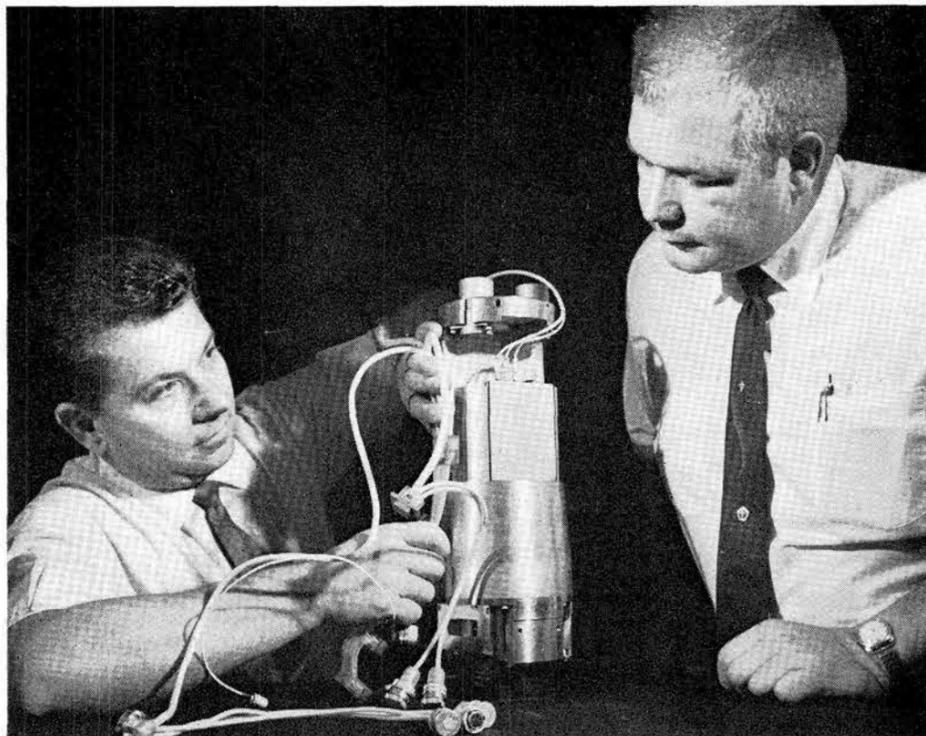


HOW ABOUT  
"AIRPLANE"



O.K., BUT THAT SURE  
SEEMS LIKE A FUNNY  
NAME FOR  
AN UNDER-ARM  
DEODORANT.

PICK WILSON © 1968



**THE SANDIA MILKING MACHINE? Well, no. This telemetry assembly, being checked by Robert Strout (left) and Larry Humphreys (both 8181), was developed by them to monitor about 50 functions during flight test to determine how well system operated. Assembly is used in AEC/DOD programs of post development testing.**

## Livermore Summer Enrichment Program Begins Next Week



Marvin Beckett (8161) is one of the 100 or so local volunteers who are teaching 35 courses in the "Summer Enrichment Program" sponsored by Livermore's Nursery School Scholarship Fund. Marv will instruct the course "Engineering — What is It?"

The program, which begins June 23, replaces the usual summer curriculum. Main objectives are to provide intellectual enrichment to students and to raise funds for the Nursery School Scholarship Fund, out of which tuition costs are paid to send low income and non-English speaking children to Valley nursery schools.

Classes are offered to children from the pre-school level through the 12th grade, and a few classes will also be open to adults.

Marv says the goal is to get enthusiastic, knowledgeable adults together with the youngsters so that a fruitful learning experience can take place. "What I'm teaching is really an engineering orientation course. So my intent is to acquaint the students with some of the broad as-

pects of engineering. The sessions will cover many of the disciplines in engineering, and I'll encourage questions from the students."

Other course offerings include: art, auto mechanics, ballet, beginning computer, chess, conversational Japanese, creative writing, folk dancing, health science, local government, "Mini Tour of Many Lands," remedial reading, and Spanish.

Adults may take archery, basic electronics, beginning strings, cello, general science and mathematics, "Law in Society," mass media, opera, organic chemistry, and shorthand.

Cost is \$7 per person from one family, plus \$3 for each additional student from the same family address.

Class schedules and application blanks are available at the Livermore Library, Books Universal, the Village Canteen, and Granada and Thompson Pharmacies. Additional information may be obtained from Mrs. Judy Weiss at 447-3533, or Al Mezzetti, 846-2865, ext. 22.

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JUNE 20, 1969

### Art Show on Exhibit In LRL East Cafeteria

The work of a dozen local artists makes up the LRL Arts Association's spring show which is on display at LRL east cafeteria through July. The group, made up of members from LRL, Sandia, their sponsors, and some members of the general community, sponsors the annual event and awards plaques to winning artists in various categories.

This year the theme of the show was San Francisco as depicted by each painter in both realistic and abstract manners. These were judged in two divisions: open competition, regardless of style, and best pair displayed.

Helen Weaver (wife of Bob Weaver, 8312), was among those competing in the show, and whose work is now on exhibit.

### Take Note

Perry Lovell, supervisor of Environmental Health and Medical Services Division 8263, spoke recently to attendees at the annual meeting of the national Health Physics Society held in Pittsburgh, Pa. His talk, selected for presentation by the program committee, covered "The Importance of Management Awareness of the Proper Relationship of the Health Physicist to the Other Professionals."

Al Alford (8223), Ernie Alford (8245), and Marv Glaze (8260) are three of the seven members of the board of directors of Valley Elkco Corporation. The company was formed recently to operate the facilities of the Livermore Heights Pleasanton Elks Lodge No. 2117 and provide catering services to the Elks and other local organizations. Profits will be used toward retiring the loan on the Lodge building which is to be constructed this year.

Gil Rhodes, supervisor of Safety Engineering Division 8262, was elected a member of the board of directors of the East Bay Chapter of the National Safety Council for 1969-70 at the annual meeting of the council held June 4 in Oakland.

Carl Beckham (8151) shot a low net of 69 to win the first place trophy in the Sandia Employees Golf Club tournament held at the Dry Creek Golf Course near Lodi, Calif., May 24.

In the "best ball, two-man team" feature, Hal Faulkner (8252) and Hesa Yoano (8323) finished in first place with a net score of 62 and Ralph Morrison (8153) and Roy Packett (8168) placed second with 64. Roy was also closest to the pin in the hole-in-one contest.

### Sympathy

To Conrad Stayner (8245) for the death of his mother in Tracy, Calif., May 29.

To Roger Baroody (8160) for the death of his father-in-law in Pasadena, Calif., June 5.

To Bill Lavinsky (8223) for the death of his father-in-law in Kansas, June 2.

To Refugio Marroquin (8245) for the death of his mother in Texas, June 9.

### Retiring



Oran (Monte) Parrish, a precision sheet metal worker in Special Machining and Support Shop Section 8223-2, will retire the end of this month.

He was employed at Sandia Laboratories Livermore in November 1958 and has worked in the Model Shop the entire time. Previously, he was with Lockheed, the Alameda Air Station, and several airlines since coming to the Bay Area in 1945.

Following retirement, Monte and his wife will move to Medford, Ore. "We have a couple of pieces of land there and last April bought a home on another two and a half acres," he says. "There is a large garden area and an orchard that should keep me pretty busy, but my main interests will be rock hounding and lapidary work."

"Here my wife and I have been involved mostly in ceramics — everything from dishes to fancy dolls," he continues. "We have all our own molds and kilns. I do the casting and both of us do the glazing and firing. In addition, my wife has been teaching ceramics to four classes of women each week. When we move, I'll be taking my grinding equipment, trim saws, etc., for my lapidary work and we'll be closer to good rock hounding country."

### Congratulations

To Emily Isaacs (8214) and Chris Burkholder married in Fremont, Calif., May 29.

To Fred Perez (8216) and Chris Nelson married in Livermore, May 31.

To Mr. and Mrs. Gene Moore (8131), a son, Matthew Ervin, May 23.

To Mr. and Mrs. David West (8216), a son, Jon David, May 18.

Mr. and Mrs. Vern Bailey (8335), a daughter, Anne Katharine, June 4.

Mr. and Mrs. Don Bohrer (8123), a daughter, Deanna Dawn, June 11.

Mr. and Mrs. Alec Willis (9335), a son, Mark Conrad, June 7.

### Monthly Announcement of Livermore Centennial Events

#### Events for July

- July 7 Livermore Day at County Fair
- July 16 Barbecue sponsored by the Business and Professional Women
- July 26 Aqua Cowboys Swim Meet
- July 27 Family barbecue sponsored by the Rod and Gun Club

Details about all events are available from the Centennial Office in the Chamber of Commerce building, Tel. 447-1626.

### Rudy Johnson Awarded MA Degree in Natural Science



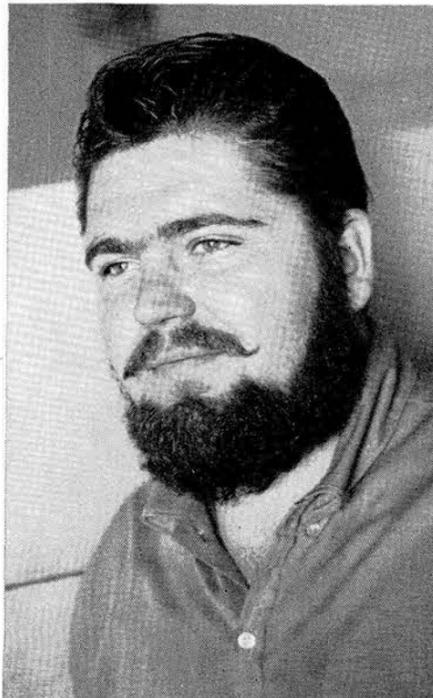
H. R. (Rudy) Johnson (8311) received a Master of Arts degree in natural science recently from San Jose State College. His major was in geology.

All of his graduate courses were completed while attending evening classes at San Jose State College over the past five years.

Rudy joined Sandia Laboratories Livermore in March 1957 and has since worked in the materials application organization, except for about four years in production engineering. Most of his work in the material areas has been in organic and inorganic finishing and corrosion studies.

He received his Bachelor's degree in chemical engineering from North Carolina State University in 1953.

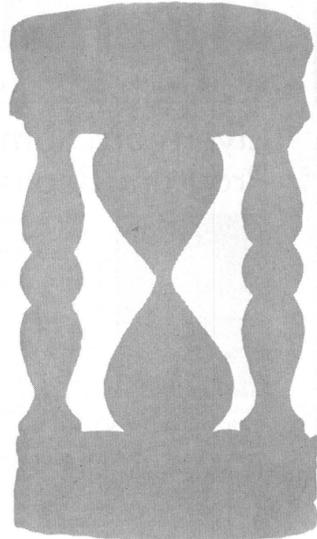
**BEST BEARD AWARD OF \$75** went to Sandian Hollis Miller (8245) in the recent Centennial Year beard-growing contest sponsored by the Livermore Jaycees. Clean-shaven on February 27, Hollis had trimmed and brushed the growth for three months preparing for the event.



**SITTING PRETTY** — This young lady suggests you take a look at the fine print on your cigarette package:

"Caution: Cigarette Smoking May Be Hazardous to Your Health."

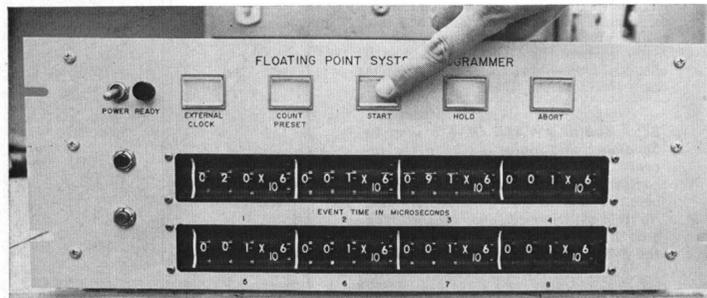
Adana Echer (8150/8170) offers the good advice.



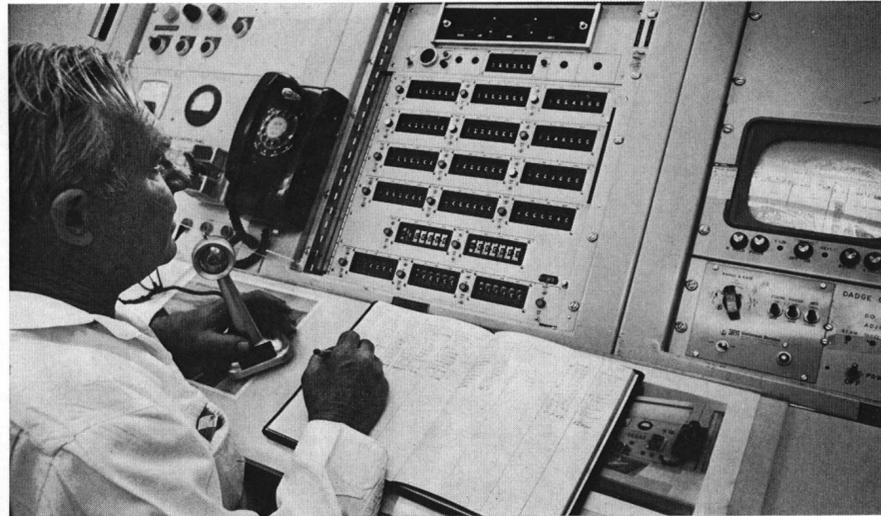
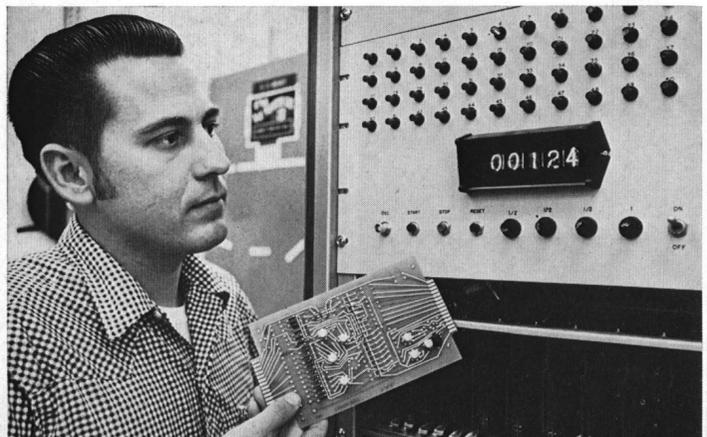
# A Time for All Reasons

"Say, d'ya have the time?"  
 Boy, do we have the time! Epoch time, interval time, event time, sidereal time, solar time, atomic time, coordinated universal time — you name it and somewhere within Sandia we've got it.  
 Time and the many ways of measuring it have become increasingly important to modern man and modern technology. Whether it's a matter of knowing when five o'clock arrives or of measuring the duration of a phenomenon down to the last millisecond, clock watching is a hallmark — and sometimes an affliction — of our lives.  
 At Sandia there are three sources, or standards of time: a quartz crystal oscillator frequency standard operated by Electrical Standards Division 7452; a cesium frequency standard (atomic clock) operated by Timers Division 2326; and the Simplex radio supervised time control (master office clock) maintained by Office Machine Repair Section 4516-2.  
 For ourselves, we sort of like our Mickey Mouse watch . . .

CONTROL of up to eight separate events is possible with this Floating Point Programmer which counts time in steps of microseconds to seconds. The system is driven by a crystal oscillator control clock.



TIME OF ARRIVAL system is used with the shock tube for determining the velocity of shock waves. Dick McAvoy (7335) installs one of the 50 code cards which measure the time it takes shock waves to move between various points along the eight-foot shock tube.

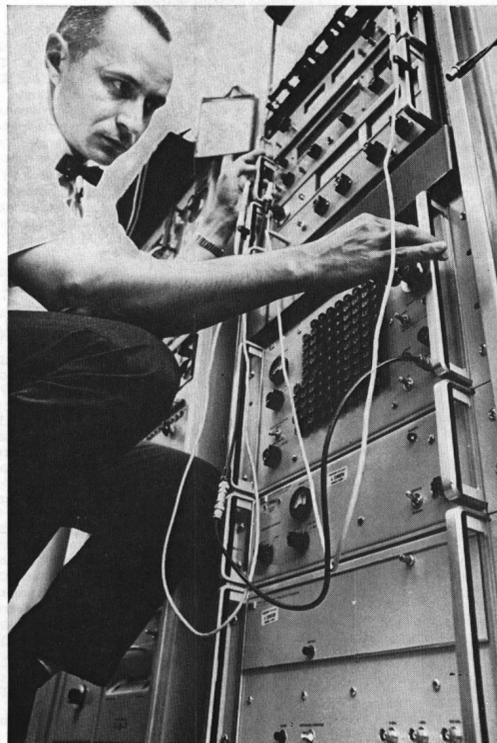


COUNTDOWN SYSTEM at sled track measures not only pre- and post-event time (large readout at top) but also event time for up to 17 different functions with millisecond accuracy. Reid Arrington (7344) is at console.

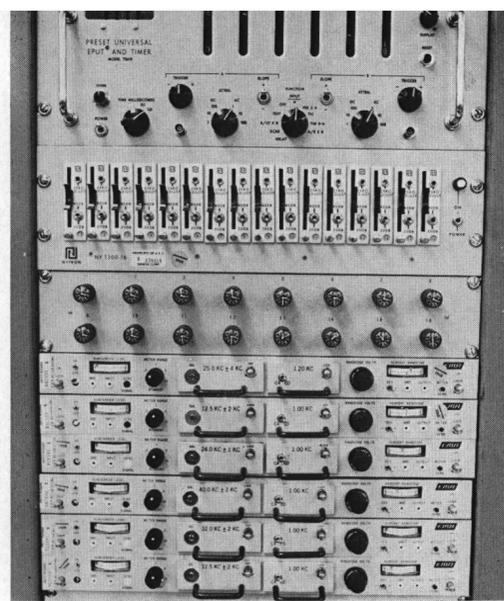
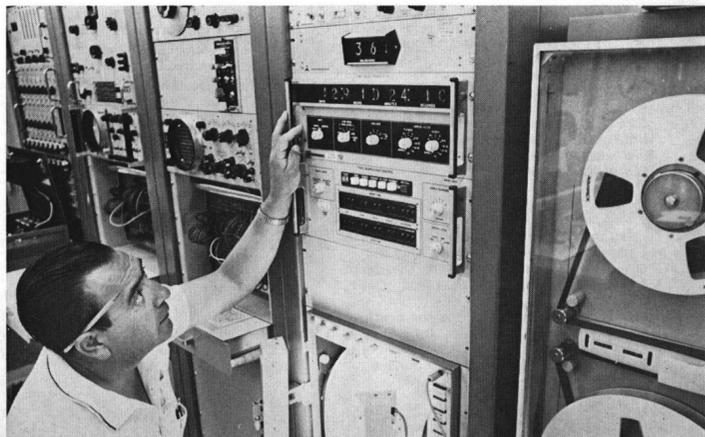
QUARTZ OSCILLATOR crystal frequency standard is source of a coded time signal for Sandia Laboratories. Glen Howard (7452) calibrates the central time coder by means of a signal from National Bureau of Standards station WWVB. The Sandia clock is accurate to within one-thousandth of a second.



CESIUM BEAM frequency standard is the "atomic clock" in Timers Division 2326. Cesium tube is in the bottom panel. Joe Losinski adjusts equipment, accurate to a few parts in  $10^{11}$ . An "atomic second" is defined as 9,192,631,770 vibrations of a specific transition of the cesium atom.

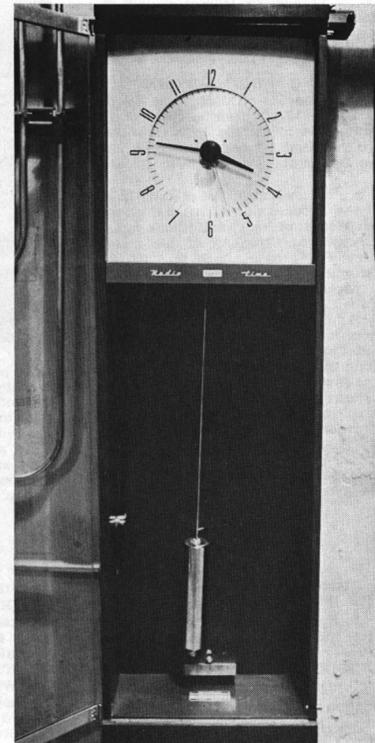


EPOCH TIME, or the time when an event occurred, can be retrieved from recorded shock test data with this IRIG Timer (Inter Range Instrumentation Group). Gene Medina (7331) records readouts from the device which is equipped with tape search and playback capability. IRIG can locate events in time down to milliseconds.

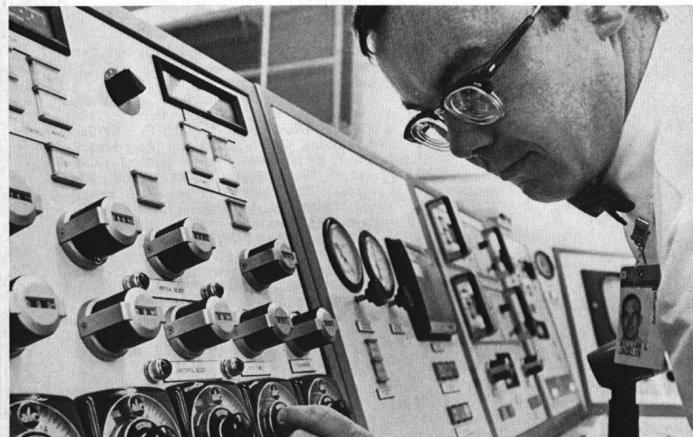


SPECIFIC TIME of events in shock tests are located by the IRIG timer and fed into this Present Universal Timer in Area III which measures event duration with microsecond accuracy.

RADIO SUPERVISED time control in the basement of Bldg. 806 controls the office clock system throughout Sandia. The master clock is regulated by a time signal from WWV in Fort Collins, Colo.



PLASMA FACILITY uses this Dwell Timer to control duration of plasma tests. Bill Jacklin (7335) calibrates the timer. Exposure of test items in the facility can be controlled to intervals accurate within half a second.



## Supervisory Appointments



DAVID SCHUSTER to supervisor of the newly-created Composite Materials Development Division 5414, effective June 16.

David joined Sandia in 1967 and has worked in the Metallurgy Division and the Ceramics and Surface Physics Division. His activities include research into and development of fiber-reinforced metals and ceramics.

A member of the Sandia Research Colloquium Committee, David has a BS in metallurgy from the Massachusetts Institute of Technology, an MS in metallurgical engineering and a PhD in materials science and engineering from Cornell University. At Cornell he was a research and teaching assistant.

He is a member of the American Society for Testing and Materials and secretary of a subcommittee of ASTM, the American Institute of Metallurgical Engineering, and the American Society for Metals. He is chairman of the educational committee of the Albuquerque Chapter of ASM. He also serves as a reviewer for the ASTM and AIME journals.  
 David and his wife Margo live at 7100 Constitution Ave. NE.



ROBERT PARK to supervisor of Surface Kinetics Division 5441, effective June 16.

Since he joined Sandia in 1965, Bob has worked in the field of surface kinetics, specifically in the area of the structure and properties of single crystal surfaces.

He has a BS and MA in physics from the University of Texas, and a PhD from Brown University where he was a research associate and Edgar Lewis Marston Fellow.

Bob is a member of the American Physical Society and serves as secretary of the Surface Science Division in the American Vacuum Society.

An Air Force veteran, he served as a Weather Electronics Officer from 1951-56. Bob, his wife Jerry, and their two sons live at 6107 Lovelace Rd. SE.



RICHARD ANDERSON to supervisor of Plastics Materials Processes II Division 5439, effective June 16.

He has worked in the Organic Materials Division since he joined Sandia in 1961 and has been concerned with development and application of polymer encapsulating and foam materials.

A graduate with a BS in chemistry from Idaho State University, Dick has a PhD in organic chemistry with a master's equivalent in oceanography from Oregon State University.

Dick has taught out-of-hours courses and in the Unified Science and Engineering Program for supervisors while at Sandia.

He is a member of the American Chemical Society, the Chemical Society of London, and the Limnology and Oceanography Society of America.

Dick, his wife Shirley, and their three children live at 2818 Pennsylvania NE.

## Mathematician Receives UNM Doctoral Degree



John Ellefson of Systems Analysis Division II, 1714, received his PhD degree in mathematics from the University of New Mexico during commencement exercises this month.

His dissertation was on "Most Stable Tolerance Limits for Log-Concave Distributions."

Both of his previous degrees, a BS in physics and an MS in mathematics, were from Montana State University. He joined Sandia Laboratories in 1966.

## Retiring



Don Saunders, a technical illustrator at Sandia Laboratories for 22 years, is retiring the end of this month. Before joining Sandia in June 1947, he had worked for an artwork-lithograph company in Dayton, Ohio.

"Sandia's retirement plan has an excellent early retirement feature which I decided to take advantage of," Don says. "I want to work seriously at painting — in fact, I'll be devoting most of my time to it. My wife also paints and, with this double involvement, we particularly enjoy sketching trips. My interest is in southwest landscapes. We have a travel trailer and are looking forward to many sketching trips throughout the southwest."

Mr. and Mrs. Saunders have three children and eight grandchildren. Later this year, they plan to visit their son in California. They have a daughter living in Albuquerque and another daughter on a ranch in Nevada.

"I'm going to work, work, work at painting," Don says, "but I also enjoy photography — just as a hobby."

the past year, says much of that time was spent playing with and spoiling his grandson. His son Richard, serving with the New Mexico Air National Guard, was one of the group recently returned from Korea.

Primo has diabetes and is leaving Sandia with a disability retirement. He is resolved, contented, and has accepted his problems; his philosophy—"look around and you can always find someone worse off than you." With this in mind, he has made definite retirement plans. "I have been so busy all my life—working, raising a family, building my home—that I've never really seen much of our state. I'm going to travel, catch up on fishing, and become reacquainted with friends and relatives."

Primo will continue to work with the Albuquerque Diabetes Association. This group works as a consultation service for diabetics. Primo says he visits patients in their homes and keeps informed on anything relating to diabetes.

"Sandia is a fine place to work," he says, "and I'll be leaving many friends. I'll be out to see them once more because they are having a retirement party for me."



Henri Guerin, a machinist in Machine Shop Division 4252, is retiring the end of this month. He joined Sandia in August 1956 and for 15 years before had been a machinist with Lever Bros. in Indiana.

Mr. and Mrs. Guerin will remain in Albuquerque following retirement. Henri has been ill for the past few months and has made no definite plans, except to get well and "then do what I want, when I want to." He enjoys bowling and traveling. The Guerins have four children and 12 grandchildren—all living in the Chicago area.

"We do expect to visit our children, and other relatives in Indiana and California," Henri says, "but other than that, we are just going to rest and relax."



A. M. (Primo) Romero, a mechanical inspector (4213-3) in Inspection Calibration Division, will retire July 3. Primo has worked at the Laboratories for more than 20 years — since August 1948 — as a material handler, commercial inspector, and has been in his present job about four years.

Mr. and Mrs. Romero have four children, three still living at home, and one grandson. Primo, who has been on sick leave for

## Take Note

Not listed in the last issue of LAB NEWS with other returning National Guardsmen was George O. Lawrence (4151). George had returned a few weeks earlier after service in Vietnam.

The American Radio Relay League Rocky Mountain Division, will hold its annual convention in Salt Lake City, Utah, on July 4-6. Convention headquarters will be in the Hotel Utah. Six hundred ham radio operators from New Mexico, Colorado, Wyoming and Utah are expected. Sandians planning to attend may call Tom Banks (9235) on 264-6856 for information on tickets and reservations.

Ever have the feeling that you could come up with a better-designed children's toy? Here's your chance.

A small toy factory on Jemez Pueblo, which employs Indians, needs more ideas for educational toys. They prefer items of creative nature that "make the child think." They definitely don't want to manufacture cowboy and Indian games or bow and arrow kits.

Contact Mel McCutchan of Affirmative Action Division 3235 for further information.

Plan ahead! Teller's windows in the finance office (org. 6020), bldg. 802, room 122, will be closed until 10 a.m. on Tuesday, July 1. The delayed opening derives from activities associated with the end of the fiscal year.

Bill Allison of Safety Engineering Division 3351 recently conducted two sessions of a Safety Engineering Short Course at the University of Oklahoma. The sessions were "Hypothetical Technical and Economical Control of Hazards" and "The Safe Use of Pressure Fittings and Rupture Discs on Research Pressure Vessels and Systems."

Six Sandians have been instrumental in establishing a full-time day school for children of working mothers living in a depressed area of Albuquerque. Jack Reed (9150), David Holt (9214), Bob Clark (2343), Charles Jennings (5443), Lem Miller (9423), and Don Morrison (1724) are among area church or community representatives who assisted in development of the Phillips Chapel Project which will provide care for the children up to 10 hours a day, five days a week. The project was sponsored by the Greater Albuquerque Federation of Churches. The Phillips Chapel is located at 1401 Edith SE.

## Slide Show June 23-24 Promotes Sandia Wilderness

"Wilderness in Our Backyard," a color slide show promoting the idea of a Sandia Mountain wilderness area, will be shown June 23 and 24 during the noon hour in Bldg. 815.

One of the most enthusiastic backers of this proposal is Milo Conrad (9121), who is responsible for about a third of the slides in the show. He has personally shown "Wilderness in Our Backyard" to 42 groups in both Albuquerque and Santa Fe.

The wilderness proposal, which will come up for official hearing in 1972, includes 7000 acres in the North Peak area and 8000 in the South Peak area — actually only one-fourth of the Sandia Forest Service district, according to Milo.

Groups interested in the proposal — including the New Mexico Mountain Club, Sierra Club, and New Mexico Wildlife and Conservation Association — have already received cooperation from the Forest Service in helping to protect the north end of the Sandias.

"Most of the proposed area," Milo says, "is not suitable for mass recreation, grazing, mining, or logging — it is real wilderness terrain." Several trail usage surveys have been made. The observers found that the trails were used 95 percent by walkers, 4 percent by motorized cycles, and 1 percent by horses.

## 66 Participate In SEGA Tourney

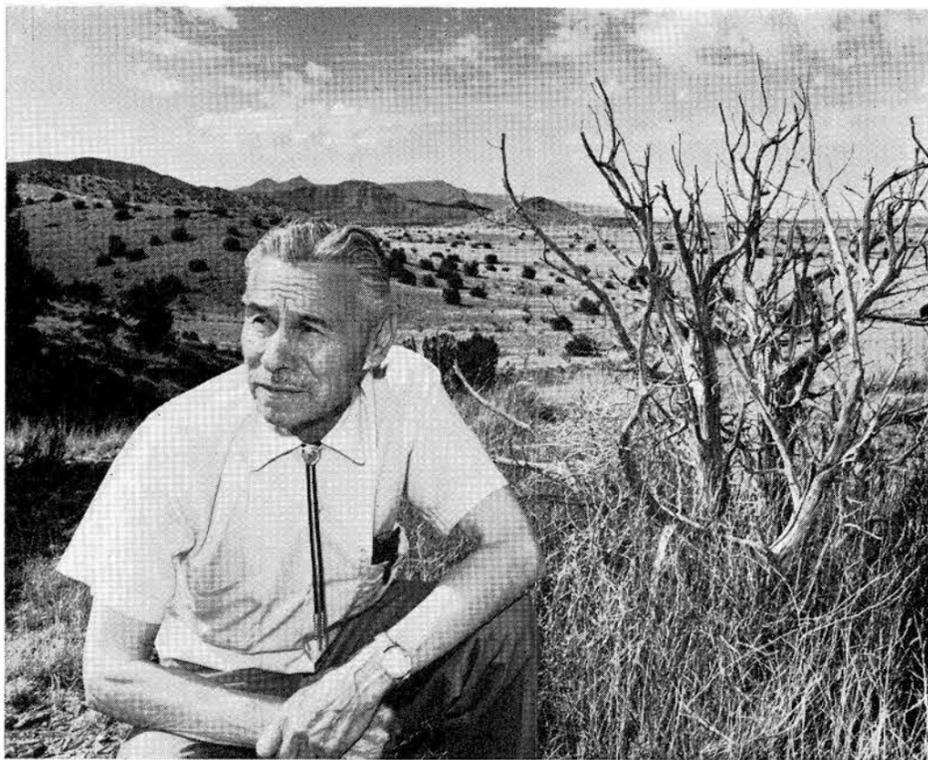
Paul Callies (2441) and Art Littleford (2444) were top winners in the recent Sandia Employees Golf Association Capitol Open Tournament played in Santa Fe June 7. The event was a "two-ball" net sum meet. The champs won the net sum trophies with 152 and also took the second flight honors.

First flight winners were Wendell Nelson (4137) and Jerry Smith (9252).

Bob Halsey (9224) and Randy Rozelle (7651) took third flight wins while Joffe Myers (4214) and Ed Peterson (4252) took the fourth flight.

Dale Jones (2642) won individual low net honors with 70 while Wendell Nelson took the low gross with 79.

Tournament chairmen were Wayne Lathrop (9221) and Stan Meyer (1542). Some 66 SEGA members participated.



THE MAN WHO OWNED SANDIA BASE—or at least a good portion of it, Solomon Apodaca (4232), revisits Coyote Springs area in Coyote Canyon where the Apodaca family lived and raised cattle when Sol was a young man. Home constructed of field stone was levelled by bulldozer but old salt trough remains. Sol retires soon and hopes to explore his family's origins in Spain.

## Sol Apodaca Has More Years Here Than Anyone

Solomon Apodaca of Mechanical Assembly Section 4232-1 is retiring June 30. He was employed by Sandia in March 1951. Before that time he had worked for civil service and for the State Highway Department.

Sol is a descendant of the original holders of the Apodaca and Luna land grants. He has records of his grandfather's family dating back to 1712 and of his grandmother's (Candelaria) back to 1706. Sol recalls when his father owned a strip of land (part of the original grant) running from the Rio Grande out to the Four Hills area (right through Tech Area I). Headquarters for their cattle and sheep ranch was in Coyote Canyon, where Sol spent the summers. He remembers a winter during the first World War, when his dad lost 6000 sheep in freezing weather. "This was all beautiful grass country before the drought hit the southwest in the early 1930s," Sol says.

Sol's immediate retirement plans include a trip to Seattle and Boise to visit relatives. "I like to keep busy," he says, "so I may do



some part-time work. My son-in-law has a Model A that I'm going to restore, and my wife and I like to travel. In fact, I want to visit Spain and pursue my interest in the history of my family."

Mr. and Mrs. Apodaca have three children and seven grandchildren, all living in Albuquerque. They will continue to reside at 5012 Pastura Place NW.

## Authors

G. W. Arnold and D. K. Brice (both 5111), "Luminescence in Zn-Doped GaAs," Vol. 178, No. 3, PHYSICAL REVIEW.

E. J. Shipsey (5232), "Quantum-Mechanical Hamiltonian for Triatomic Chemical Reactions," Vol. 50, No. 6, JOURNAL OF CHEMICAL PHYSICS.

D. C. Wallace (5151), "Pseudopotential Calculation of Phonon Frequencies and Gruneisen Parameters for Lithium," Vol. 178, No. 3, PHYSICAL REVIEW.

E. A. Aronson (2625), "Fast Fourier Integration of Piecewise Polynomial Func-

tions," April issue, PROCEEDINGS OF THE IEEE.

G. E. Barr (1721), "The Integration of Generalized Hypergeometric Functions," May issue, PROCEEDINGS OF THE CAMBRIDGE PHILOSOPHICAL SOCIETY.

J. W. Poukey, J. B. Gerardo, and M. A. Gusinow (all 5243), "Properties of an Afterglow Helium Plasma," Vol. 179, No. 1, PHYSICAL REVIEW.

B. J. Thorne (5162), "A-P Congruences on Baer Semigroups," Vol. 28, No. 3, PACIFIC JOURNAL OF MATHEMATICS.



AEC'S BUDGET REVIEW COMMITTEE from Washington visited Sandia Laboratories last week for budget and technical briefings. Hermes II flash x-ray facility, shown here, was included in itinerary.

(Continued from Page One)

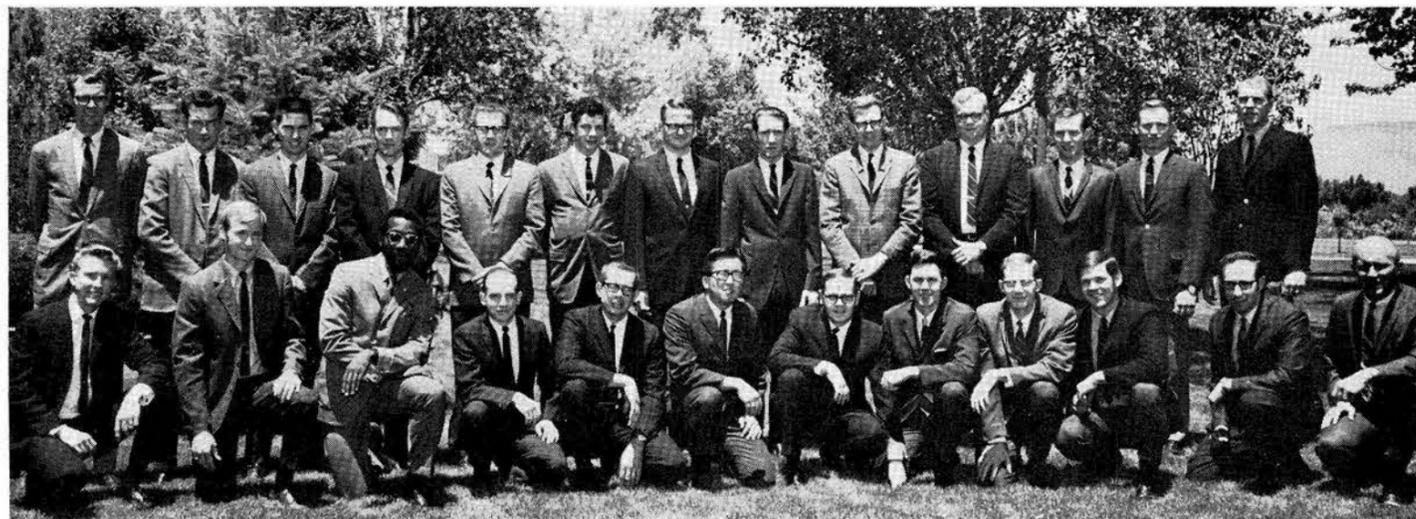
## The Graduates

education programs—One Year on Campus, Computer Science Program and Doctoral Study Program.

The 1969 TDP graduates are Wilson Barnard (1512), Wayne Perry (1543), George Novotny, Jr. (2312), William Spaulding (2312), Raymond Bair (2322), Paul Bonaparte (2325), Gene Dornhoff (2326), David Kestly (2344), Randall King (2454), Gary Brown (1714), Paul Thompson (2625), Gary Nelson (7212).

Dennis Breuner (7222), Robert Fritz (7271), Richard Yoshimura (7322), Andy Kyzar (7333), Bruce Varnado (7333), John Austin (7341), Stewart Fluent (7341), Harold Walling (7342), Charles Field III (9121), Thomas Hunter (9133).

Carlin Newcom (9214), Timothy Taylor (9214), James Price (9239), Dale Berg (9322), Stephen Sweig (9324), and George Elkins (9512).



## Service Awards

### 20 Years



Calvin Cox  
7223



Charles Crider  
4213



Carl Frantz  
7421



Ronald Hatcher  
4222



Lloyd Jolly  
4232



William Peay  
4254



Kenneth Shinn  
7637



Claude Waldorf  
4221

### 15 Years



Raymond Alls  
2622



Keith Baltz  
7212



Lillian Bowers  
4152



Arthur Brown  
4253



Charles Burks  
1514



Stephen Farrelly  
7226



James Griscom  
2453



Richard Guilford  
2314



Glen Haines  
4232



Robert Hiltunen  
3520



Thomas Hoover I  
1222



Jimmy House  
7411



Louis Jacot  
6011



Richard Kavet  
1513



Charles Klutts  
2453



Morgan Kramm  
9210



Charles Ladig  
4252



Dwayne Mozey  
1211



Eloise Perry  
8223



Anthon Petersen  
9126



William Poole  
9253



Robert Utter  
3132



J. L. Wilson  
8129

## Speakers

T. A. Duffey (5162) and R. D. Krieg (1541), "Elastic-Plastic Uniformly Expanding Rings and Long Cylinders," Second Canadian Congress of Applied Mechanics, May 20-23, Waterloo, Ontario, Canada.

C. H. Purdue (2442), "Computer Aided Reliability and Quality Analysis of Electronic Circuits," Western Electric Interworks Quality Control Conference, May 14-15, Chicago.

F. R. Norwood (1721), "Exact Transient Response of an Elastic Half-Space Loaded Over Radially Asymmetric Regions of its Surface," Society for Industrial and Applied Mathematics 1969 national meeting, June 10-12, Washington, D.C.

J. A. Reuscher (9142), "Dynamic Thermoelastic Calculations for Cylindrical Fuel Elements"; J. H. Renken (5231), "Use of the Method of Discrete Ordinates for Photon Transport Calculations"; L. A. Harrah (5113), M. Wankerl and M. Wacks (both University of Arizona), "Chemical Dosimetry: Triphenylmethane Dye Intermediates," 15th Annual Meeting of the American Nuclear Society, June 15-19, Seattle.

A. D. Swain (1642), "Human Factors Engineering," Albuquerque Technical-Vocational Institute, June 3.

T. B. Sherwin (3430), keynote address, Information Exchange Seminar of the New Mexico Information Officers and Public Relations Officers, May 1, Albuquerque.

H. H. Patterson (9230), "Mexico and the Sea of Cortes," First Presbyterian Church, May 4.

A. Goodman (1224), "Physics as a Career," Albuquerque Academy, May 6.

G. H. Bradley (1641), "Engineering as a Career," Albuquerque Academy, May 8.

M. I. Weinreich (3421), "Foreign Languages as Professional Careers," Hoover junior high school, May 27.

S. J. Buchsbaum (5000), "Waves and Oscillations in Solid State Plasma," University of California Department of Physics, June 5, Los Angeles.

G. P. Steck (1723), "Non-Parametric Analyses of Longitudinal Data," Conference on Statistical Methodology in Logitudinal Aging Studies, April 17, Albuquerque.

P. L. Stanton (2314), "An Explosive Driven Flying Plate Plane Wave Gener-

ator," 1969 SESA Spring Meeting, May 13-16, Philadelphia.

L. S. Nelson (5224), "High Temperature Studies with the Falling Sample Technique," New Mexico State University Seminar, May 15, Las Cruces.

C. H. Williams (5224), "A Mass Spectrometric Study of the Positive and Negative Ions from Carbon Vapor," 17th Annual Conference on Mass Spectrometry and Allied Topics, May 18-23, Dallas.

J. H. Graham (7624), "A Bounded Geometry Language and an Associated Data Matrix," IMOG Numerical Systems Group meeting, May 20-22, Los Alamos.

N. S. Gillis (5151), "Ferroelectric Phase Transition in Diatomic Semiconductors," IBM San Jose Lab on May 21, University of California at Berkeley on May 23, University of Washington on May 26.

E. F. Armbrust (3351), "Safety Problems, Underground Nuclear Testing," WE Regional Safety Conference, May 26-28, Denver.



Lewis Fisher

## Deaths



Lloyd Busch



William Fears

Lewis Fisher, a machinist in NC Machine Shop Division 4251, died suddenly June 8. He was 52.

He had worked in the Development Shops since November 1956.

Survivors include his widow and three sons.

Lloyd W. Busch, a machinist in Machine Shop Division 4253, died June 15 after a short illness. He was 53.

He joined Sandia Laboratories in October 1958.

Survivors include his widow, two daughters, two sons and one grandchild.

William B. Fears, a staff member in Product Acceptance Division II, 7414, died June 12 after a lengthy illness. He was 47.

He had been with Sandia for 20 years.

Survivors include his widow and two children.

### 10 Years

June 20 - July 3

Richard Beasley 1513, Josie Sena 2600, Crowell Dean 3421, Norman Baker 7411, Charles Still 7452, William Wall 8121, Fred Dalrymple 8124, Carrell Christensen 8164, Max Schell 8182.

John Leeper 8183, Vernon Ivins 8223, Richard Finn 8252, Darlene Kibby 8252, Josephine Trujillo 3126, Florencia Jaramillo 4574, Raymond Peabody 9132, Duane Stenberg 1525, Marvin Becktel 8161.

Clayton Mavis 8331, Wayne Cook 9122, Ralph Cozine 8154, Julia Polito 3412, Walter Wyant 1221, Wayne Sebrell 1542, Florencia Mora 4575, James Barham 8131, Robert Facer 8151, Donald Bohrer 8153.

Melvin Brown 8172, Harold Norris 8174, Daniel Dewhirst 8226, Leslie Anderson 145, Elmer Wendt 2452, Karl Waibel 4117, Donald Butel 5245, David Dean 8125.

J. D. Porter 8182, Leopold Daniel 8223, David Abrahams 8233, Gordon Van Gundia 8332, Robert Klett 9513, Gerald Strandin 8133, and Garth Fahrbach 2615.

## 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

LEFT-HANDED Kenneth Smith golf clubs, 5 woods, \$70; irons, 2 through wedge, \$80; all recently regripped; 9x12 wall tent, mosquito netting, \$35. Leonard, 299-4684.

CHILDREN'S 2-seat glider swing, \$7.50; 8" tricycle, \$3; baby scales, \$1.50; bed guard rail, \$1. Stephenson, 298-5902.

PONY SADDLE, \$15. Romero, 344-0302.

PISTOL HOLSTERS for .45 cal. Colt auto, Ruger auto, & .357 S&W 4" barrel, \$2.50 ea. Smailor, 299-8413.

BELL & HOWELL 8mm projector, auto load & slow motion (16 speed settings), \$65. Beller, 268-2758.

KELVINATOR refrigerator-freezer, white. Roybal, 299-9647.

POOL TABLE, cue sticks, wall rack, \$45. Metzgar, 242-1028.

REFRIGERATOR-freezer comb., GE, 14 cu. ft., 2-dr., lg. freezer, \$80. Laffoon, 242-2386.

AKC REG. German Shepherd puppies, excellent temperaments & conformation. Kramm, 268-5078.

RIFLE, .22 cal. Remington Sportsmaster w/3-X Texan scope, \$50. Morrison, 855-6244.

'67 SNOWCO 1/2-ton trailer, raised cover. Voorhees, 256-3971.

BICYCLE, girl's double-bar, 20", thorn proof tubes, green, \$18; tricycles: 20" green/white, \$5, 14" red, \$8. Allen, 298-9437.

TRAVEL TRAILER, '65 model, 17', sleeps 4 adults and 2 kids, 12 volt lights, water pump, heavy duty battery, other extras. Singleton, 299-1613.

TWO GELDINGS: 6-yr.-old Palomino, 3-yr.-old black, trained for ranch work. Tapia, 268-0691.

BEAGLE PUPPY, 6 mos., male, champion sire, AKC reg. Buckner, 296-1251.

ELECTRIC RANGE, Frigidaire deluxe, color-turquoise, \$85. Thompson, 298-0946.

20" BIKE for beginners, \$10; 2 white upholstered head boards for twin beds, \$10. Barton, 255-5491.

8' X 40' New Moon mobile home, 8137 Hannett NE. Downs, 299-1537.

RABBIT HUTCH, plus 2 small rabbits, \$10. Corll, 255-1186.

TOY COLLIES, AKC reg., pedigree furnished. Martin, 1-636-2049 Bosque Farms.

'67 18' Silver Streak trailer, self-contained w/monomastic toilet & rear tank, \$3200. Asturias, 299-1175.

MATTRESS, full size, \$10. Bassett, 898-1840.

ENGLISH Springer Spaniel pups, purebred, AKC reg. Barth, 345-0172.

FRIGIDAIRE refrigerator, 11 cu. ft., \$100. Donham, 299-0028.

SEAR'S Goldspot refrigerated air conditioner, 11,000 btu, 110 volt. Smolenski, 265-1667.

HEAVY DUTY 2-wheel trailer, \$65; Rheem Countertop furnace, new, 125,000 btu, \$70; Elenco PA-400 linear amplifier, 800 PEP, \$38. Berg, 299-5640.

TIRES: 2 8.55x14, \$5; 2 7.50x14, \$20. Sektan, 296-5396.

1500 C.F.M. portable air conditioner, \$15 or will trade for Coleman 2-burner camp stove in good condition. Wallace, 296-1088.

BUS SEATS, reclining back doubles w/adjustable headrests, green & white. Risse, 299-5002.

BLOND Hammond Spinnet organ, double keyboard, percussion & J.R. 20 tone box. McKenzie, 299-3260.

SUZUKI motorcycle, 55cc, \$125. Simpson, 299-1895.

'50 HARLEY DAVIDSON 74 chopper, recent overhaul, loaded, w/chrome; mike stand, \$10; factory built camper chassis, \$150. Shock, 877-3728.

SINGLE BED: padded headboard, frame, box springs, mattress, \$30; aluminum Christmas tree, packed in original carton, 6', \$7.50. Taylor, 344-8176 after 5:30.

PATIO TABLE, white, Travertine, 1" thick, \$4 sq. yd. Best, 282-3677.

TRIUMPH motorcycle, Tiger 650, 3 wks. old. Lumpkin, 299-9179.

BATHROOM LAVATORIES (wash basins) 1 ea. grey & green w/all mtg. hardware-faucets & trap sets, other bathroom items, 5 ea. light fixtures, all for \$25. Browning, 299-6384.

1/2-TON Frederick refrigerated air conditioner, window mount, 220 volt, \$50. Woodall, 296-5228.

GIRL'S BIKE 26", reg. tires, \$13.50. Marsh, 243-2767.

ELECTRI-CLEAN range, Frigidaire model No. RDE-38K; white, best offer. LaBarre, 299-3569.

AUTO air conditioner, \$30; one-man life raft, paddle, \$10; baby playpen, \$7.00; misc. dishes & glasses, \$2. Rudolph, 298-0941.

PORTABLE TYPEWRITER: electric swing-away ice crusher; Sunbeam electric frypan; electric brewer; Rival can opener; Lady Vanity blender. Michele, 243-5174.

CAR TOP CARRIER, enclosed weather proof w/suction cups, bars, straps & locks, 36" wide 40" long, 16" deep; 23" B&W TV & phonograph, blond console comb. Amez, 299-6301 after 5:30.

SUPERCHIEF American Flier train set, 15 cars & operating equip. on 3/16" scaled landscaped folding table, \$100 complete. McDonald, 265-2842.

GAS ENGINE, Wisconsin air cooled, 8 hp, cost new \$280, sell for \$75 or best offer. Benson, 255-6004.

REAL ESTATE

HEATED swimming pool, 18x32, 3-bdr., carpeting, 1 1/2 baths, cash to 4 1/2% loan or \$2600 down. Eslinger, 299-5719.

LOT: SW Valley, 2/3 acre, between Arenal & Blake, 3 blocks east of Foothill. Benton, 877-2473.

3-BDR. HOUSE, 2 bath, corner of Sigma Chi & University Blvd. Bohlman, 242-5450.

TWO C-3 lots off Miles Rd. & freeway, first \$2750 each gets them. Chavez, 298-5091.

MOSSMAN, 3-bdr., den, 1 1/2 baths, new carpeting, 4 1/2% loan, \$116/mo., 2804 Dakota NE. LeRoy, 296-2953.

CARS & TRUCKS

'58 PONTIAC sedan, PS, PB, AT, new tires. Feldman, 344-6114.

'66 CORVETTE convertible, 327 c.i.d., Michelins, Konis Lucas, below book. Shane, 7112 Arroyo del Oso Ave. NE.

'63 SCOUT, 4-wd., locking humpers, Positraction, dual tanks, heavy duty bumper, skid plates, rear seat. Kinoshita, 299-6491.

'57 DESOTO 4-dr., radio, AC, power, best offer. Smith, 256-0375.

'62 OLDS station wagon, 4-dr., white, R&H, PS, PB, \$550. Garcia, 298-8460.

'65 CORVAIR Monza 2-dr. HT, 4-spd., white w/blue interior, \$795. Syme, 298-9167.

'63 FORD Fairlane 500, 4-dr. sedan, AT, PS, 260 V8, \$560. Folkins, 1-867-2825.

'67 FAIRLANE 500 V8 2-dr. HT, \$1585. Waggoner, 282-3177.

'52 MG-TD, new instruments, upholstery, \$1000. Pollard, 268-1709.

'64 MGB, new top, new upholstery, \$900. Gochnauer, 265-2886.

'65 LAND ROVER station wagon, 4-wd. w/hubs, R&H, AC, tropical roof. Lemmon, 296-3294.

'65 MGB convertible w/radio, wire wheels, new top, \$1600. Cordova, 344-4907.

FOR RENT

HOBBY SHOP, 12'x24', suitable for auto rebuilding, art studio, & craft work, unlimited hours available, near Sandia. Villella, 298-7955.

WANTED

INSTRUCTOGRAPH or code records. Boiling, 282-3256.

RIDE bldg. 804 to 10412 San Gabriel Rd. NE, 1 block east of Morris between Comanche & Montgomery. Farley, ext. 4-1809.

EXTRA SEATS from carry-all-type vehicle. Stuart, 299-9190.

TWO or three person car pool from Eastridge to Sandia, Area 1. McGuckin, 299-1342.

LOST AND FOUND

LOST—Rx black-framed glasses, 5-yr. pin, 6 keys on ring w/dog tag, pearl earring for pierced ear, Rx safety bifocal glasses, 4 or 5 tires w/pieces of turquoise ring, blue plastic frame sunglasses, Rx sunglasses, data record book, ladies yellow gold Wittnauer watch w/black band, lt. pink hand-painted oval pin. LOST AND FOUND, tel. 264-2757, Bldg. G10.

FOUND—GM ignition key, brown frame sunglasses w/case, brown alligator eyeglass case, slide rule, pr. dangling white earrings, brown-rimmed Rx safety glasses. LOST AND FOUND, tel. 264-2757, Bldg. G10.



LOAD UP the little red wagon and drag it to the Coronado Club's Western barbecue Saturday, June 28. Helen Payne (2352) and Jim Walston (3463) agree that you can't beat that at \$2.50 per member.

#### Coronado Club Activities

## Western Barbecue Set June 28

Out here in the West, amigo, folks are friendly. The Coronado Club's Western barbecue and swim party Saturday, June 28, will be a most friendly affair. In the first place, the Club's kitchen staff is going all out concocting a special sauce for the barbecued ribs. In the second place, Rex Elder will make the sagebrush shuffle music, and then there will be splashing around in the twin pools. How friendly can you get? Dinner will be served at 7 p.m. and dancing starts at 9. You can splash around anytime. Reservations are required. The tab is \$2.50 for members, \$3 for guests.

\* \* \*

#### July 4 Picnic

The Annual Coronado Club Independence Day family picnic for members will be held on the patio starting at 11 a.m. Friday, July 4. Tickets costing 40 cents will be good for two hot dogs, baked beans and a soft drink at the snack bar. The fun and games with prizes for kids start at 1:30 p.m. The Club is arranging special entertainment for the event.

#### Social Hours

Tonight the Club's southern fried chicken is the buffet feature while Max Madrid is booked for the bandstand. Social hours start right after work on Fridays with special prices through 8 p.m. The buffet is served from 6 until 8 p.m. while the band plays from 6 until 9 p.m. Pat Reich and piano entertain in the main lounge from 9 until 1 a.m.

On Friday, June 27, the Rhythm Masters will play for dancing while the Mexican food buffet is spread.

Social hour switches to Thursday, July 3, with special prices in the main lounge. No buffet will be prepared.

\* \* \*

#### Swim Class

A swim class for "pre-beginners" age 4 and 5 will start Monday. There are some openings. The class will meet from 9:40 a.m. until 10:20 six days a week for two weeks. Call the pool office to register your youngsters. Fee is \$5.

#### Learn to Drive Defensively

## First Groups Complete Driving Course

The first of some 3000 Sandians have completed the company-sponsored Defensive Driving Course and the consensus is that classroom time goes quickly.

The course was developed by the Nation-

## Resident Psychologist's Aim: Preventive Mental Health

Do you sometimes get the feeling that the whole world is against you? Or that your boss or your wife or kids don't appreciate you? These are normal emotional responses experienced at one time or another by most of us. And usually they soon go away — usually.

If not, then you may be in need of the services of Clinical Psychology Division 3342. Bette Graham, a psychologist with that division, is concerned with preventing minor emotional tensions from becoming major detriments to mental health.

Bette, who has been at Sandia for six months and who brings a wide educational and professional background, strives for prevention rather than cure of mental health problems. "This is largely an educational service," she says. "We feel that if we can give people some help here, or get them proper help outside of Sandia, then we may prevent the problems from becoming deep-seated and much more difficult to handle."

As part of her educational effort, Bette will write a series of articles for LAB NEWS on subjects ranging from how to cope with adolescent children to combating depression following illness.

"Our main purpose here is that of confidential counseling," she says. "When someone comes to me with a problem I try to understand him and his problem and then help him understand the problem. This is the essence of psychotherapy. In the long run, people have to solve their

own problems but it helps to have someone listen."

Some of the completely normal emotional problems Sandians, or members of any population, are likely to encounter include feelings of depression following an illness or surgery, personality clashes with other people and marital or family problems.

Bette, who has an MA in psychology from the New School for Social Research in New York City and who is a doctoral candidate at New York University Center for Human Relations, served an internship at Trenton (N.J.) State Hospital. She has worked at the psychiatric outpatient clinic at Monmouth Hospital, Long Beach, N.J., was a Fellow at Jamaica Center in New York City where she also was in private practice, and before joining Sandia worked at the Bernalillo County Mental Health Center as leader of the mental health team in the Southwest Valley.

She is a member of the New York Society of Clinical Psychotherapy; the American Psychological Association, Division of Psychotherapy; the American Group Psychotherapy Association, and is a charter member of the New Mexico Group Therapy Association.

Bette recently assisted in teaching a course on "Orientation Guidance and Counseling" for people in the Personnel, Benefits, and Training organizations. Purpose of the course was to examine behavioral concepts that influence the role of the counselor. She has also taught out-of-hours courses for Sandia nurses.



CONFIDENTIAL COUNSELING is a service offered by Bette Graham, a psychologist with Clinical Psychology Division 3342. Bette, whose aim is to prevent minor emotional tensions from becoming major problems, will write an informative series on mental health for the LAB NEWS.

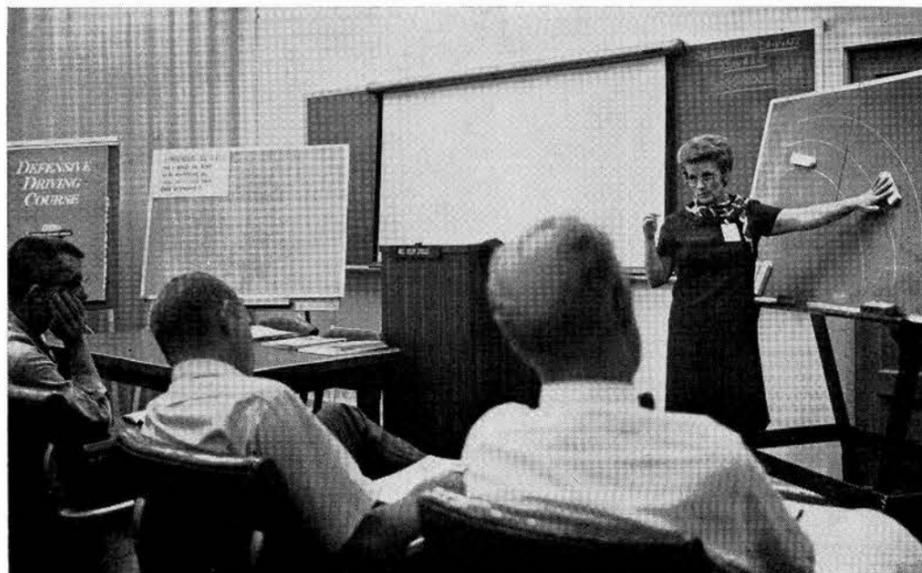
## Sandia Safety Signals

Seat belts are a good thing to have around.

(around you)



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GRAPHIC EXAMPLES of how defensive driving can prevent an accident are among features of a driver training course currently being given many Sandians. Helen Spriggs (3350) is one of the specially-trained instructors.

al Safety Council and already has been given to two million people. Although standardized for the entire country, differences in New Mexico traffic laws and driving conditions are pointed out at ap-

propriate times.

The classes — which are conducted by Sandia employees — will continue through the summer until all persons holding Government driving permits have learned about defensive driving.

As the title implies, there is heavy emphasis on how to stay alive regardless of adverse driving conditions or which driver is legally right. The preventable accident, as defined in the course, is the one which you (the driver) probably could have prevented had you taken all reasonable means to avoid its occurrence.

From this premise the instructor goes into ways to avoid two-car collisions (cause of 42 percent of highway fatalities), the art of passing and being passed, the "mystery" crash (the one-car accident accounting for 30 percent of fatalities), and other types of accidents, such as those involving a vehicle and a pedestrian.

The four two-hour sessions include movies and charts and reconstruction of accident situations.

Textbooks for the course are the New Mexico Driver's Manual, Sandia Base Traffic Regulations, and the official Defensive Driving Course student workbook.

Al Banks of Safety Engineering Department 3350 is handling administrative arrangements. The New Mexico Traffic Safety Commission is the coordinating agency. The course is sponsored through the Defense Atomic Support Agency.