



SANDIA LAB NEWS

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Weapon Pioneer Arthur B. Machen Retiring Aug. 30

Arthur B. Machen, director of Special Studies 1900, will retire Aug. 30. Since 1949 when Sandia Corporation was created, he has headed the Military Liaison organization. As manager of the group he set up a facility to distribute atomic weapons information to military organizations. He was promoted to director of the organization in 1952. During these years, the job grew from a local operation to one of global proportions.

Mr. Machen worked for the Manhattan Engineer District when the Los Alamos Scientific Laboratory was opened. He took part in the first atomic test at Trinity in 1945 and was a member of the weapon assembly and arming party on Tinian Island in August of that year when the bombs dropped on Hiroshima and Nagasaki ended World War II. Previously Mr. Machen was a structural design engineer for Lockheed Aircraft Corporation and had also worked for North American Aviation.

Mr. Machen's retirement plans include the completion of a 35-foot amphibious boat of his own design. Following launching, Mr. Machen and his wife Ginny plan several extensive trips in the craft.

Diabetes Detection Program Proves Worth In Year of Operation

A year ago a program of yearly diabetes detection tests for employees was started. Since that time, Medical Organization 3300 reports that 17 previously unknown cases of the disease have been detected.

"Even more cases of diabetes might be detected in the early stage if all employees would take this simple test when they receive their yearly notice," says Dr. S. P. Bliss, Medical Director.

During the first year of the program, notices for voluntary participation in the testing were sent to 6338 Sandia employees. Of these, 41 percent participated (2627); however, this figure was increased by those who received the diabetes detection test in connection with other physical examinations.

Notices are sent each month to different groups of employees. To take the test, the employee reports to the nearest medical station where the nurse draws a small amount of blood from his finger and allows it to dry on a special dextrose stick. In about a minute, the nurse can estimate the amount of sugar in the blood. If blood-sugar levels are higher than normal, a more precise blood-sugar reading is taken in the laboratory of the Medical building.

Medical authorities stress that early detection of diabetes is important for the immediate improvement of health and for the prevention of permanent damage such as impaired vision, premature hardening of the arteries, coronary disease and the complications of infections. Symptoms of this disease may be so vague that only a blood-sugar test can detect its presence.

Sandia Papers Presented in Europe

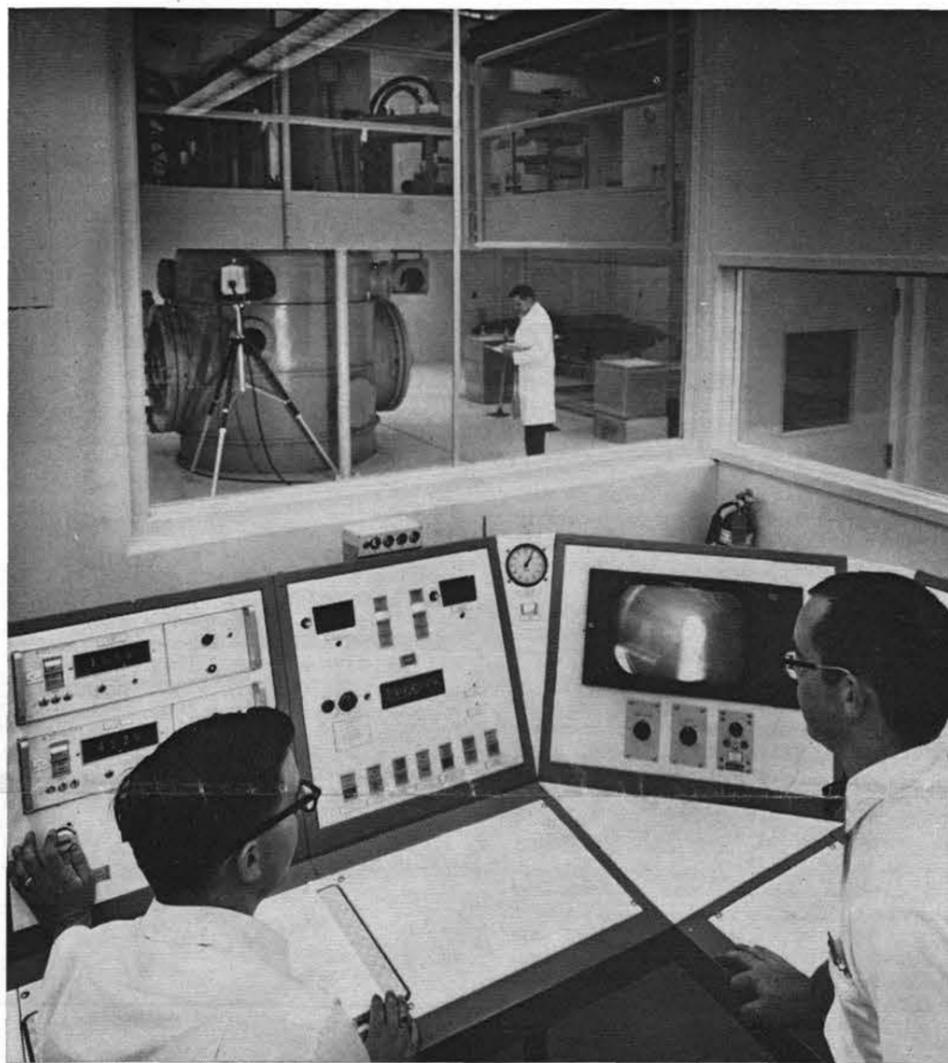
R. L. Schwoebel (5273) and N. S. Gillis (5151) recently returned from presenting technical papers at international meetings in Europe.

Mr. Schwoebel discussed "Summary of Step Motion on Crystal Surfaces" at the Second International Conference on Crystal Growth held in Birmingham, England. Another Sandian, R. A. Lefever (5154), was among the large number of American scientists attending the meeting. Most of the papers dealt with how to grow a particular crystal.

A high point of the meeting for the

Simulates Re-entry Burnup

HEAT Facility Operating in Area III



FROM CONTROL ROOM of the HEAT facility, operators Joe Hartman (left) and Bill Jacklin can watch test on television. Terry Unkelhaeuser (in background) visually checks the plasma stream through a viewing port in the pressure chamber.

Conditions of atmospheric re-entry by space vehicles are being simulated on a routine basis since Sandia's new plasma arc testing facility went into operation in Area III recently. Called the HEAT facility (for High Enthalpy Arc Tunnel), it is essentially a very high temperature supersonic wind tunnel enabling the testing of materials or scale models under re-entry burnup conditions.

The facility is operated by Environmental Testing Department 7320 under G. H. Roth.

The testing capabilities are among the most advanced in the country. In addition, the facility has a unique capability for testing radioactive or toxic materials.

Re-entry conditions are simulated by drawing a mixture of oxygen and nitrogen gas through an electrical arc at supersonic speed. The gases are super-heated to as much as 10,000 degrees Fahrenheit. The system may be operated continuously for up to 30 minutes at the maximum power input of five million watts.

As many as three re-entry vehicle models may be tested at the same time. They are mounted inside the six-foot-wide pressure chamber on steel arms which are precisely positioned in the plasma stream when the test begins.

The plasma generator has several supersonic nozzles to blanket a range of enthalpies from 2000 BTU/lb. to 20,000 BTU/lb. (Enthalpy is a thermodynamic unit of measurement of the specific energy level of a substance. In the case of the HEAT facility, an enthalpy of 20,000 BTU/lb. corresponds to a re-entry vehicle velocity of 31,400 feet per second.)

The collection and reduction of test data to engineering units are handled by an on-line computer. Up to 200 channels of data may be recorded during tests. In addition, ports in the test chamber permit photographic coverage, and a closed circuit television system enables the operator to monitor the test at the control console.

Much of the testing done at the HEAT facility will be in support of the various SNAP (Systems for Nuclear Auxiliary Power) programs, and in these tests the SNAP fuel capsules will experience re-entry conditions. The double-walled, water-cooled test chamber has provisions for washing the tank after testing to remove radioactive compounds. A series of filters clean the exhaust stream.

A powerful vacuum system provides the extremely low pressures on the downstream side of the supersonic plasma flow. The 55,000 pounds per hour of steam required by this system are generated within the facility, which also contains a 300,000-gallon water storage reservoir and a cooling tower for the steam condensers.

Operation of the facility is the responsibility of Radiant Heat and Plasma Division 7323 under Paul Adams. Matt Gubbels is project leader for the facility.

Seven Sandians Join WE's Sentinel Missile Project

Seven employees are taking leaves of absence from Sandia Laboratories this month to join the engineering staff of Western Electric Company's Sentinel Project.

Developed by Bell Telephone Laboratories, the Sentinel anti-ballistic missile (ABM) system is being deployed to meet the Communist Chinese inter-continental ballistic missile threat of the 1970's. The Sentinel system will be operated by the U.S. Army.

WE is the Sentinel system prime contractor responsible for final development and installation of the system's equipment.

The Sandians who have accepted positions with the Sentinel effort are E. M. Austin (1548), E. L. Devor (7626), W. F. Jemison (9414), W. G. Merritt (2356), H. B. Souther (9414), R. S. Summers (2443) and K. J. Shumway (7625).

Mr. Jemison will be assigned to BTL's Whippany, N.J., location, the others at the Greensboro, N.C., site. Mr. Devor, supervisor of Value Engineering and Cost Improvement Division 7626, will retain supervisory status.

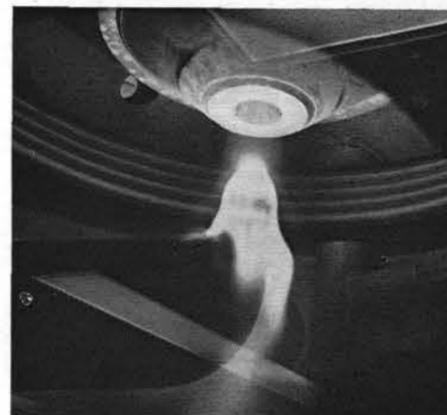
When operational, Sentinel will consist of anti-missile complexes around the United States, including sites at Hawaii and Alaska. Some of the most advanced high-speed data processors in the world will control and program high-powered radar systems as well as direct missile interception and engagement activities.

Sentinel interceptors include the Spartan, a long-range missile for intercepts outside the atmosphere, and the Sprint, a high-acceleration missile for intercepts within the atmosphere.

According to WE President Paul A. Gorman, WE is undertaking in this program one of the great challenges faced by American industry.

scientists was their reception by the Lord Mayor of Birmingham at the civic hall.

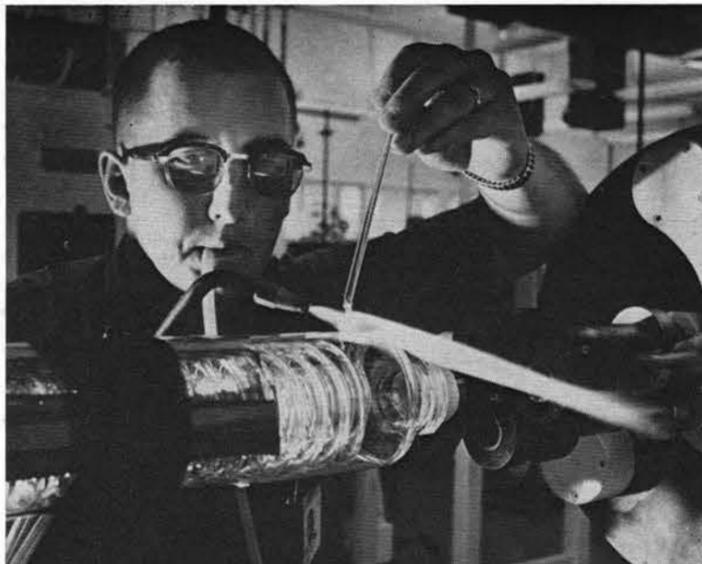
Mr. Gillis' paper, "Ferroelectricity in the IV-VI Compounds," was presented at the International Colloquium on IV-VI Compounds held in Paris. Primary interest was in ferroelectric and superconductive properties of lead-telluride, tin-telluride and germanium-telluride. The meeting was sponsored by the French National Center for Scientific Research and included scientists from France, the United States and Russia.



PLASMA STREAM (at velocities up to 21,000 feet per second and temperatures up to 10,000 degrees Fahrenheit) sheathes model re-entry shape in Sandia's new HEAT facility in Area III.



GLASSBLOWER Clinton Tuthill (4221-4) is shaping a quartz bulb using a large hydrogen/oxygen torch. His deep blue glasses filter out the intense light from the temperatures which approach 1700°C.



FABRICATING a ring seal on a double helix glass condenser requires skill on the part of William C. Ryan of Sandia's glass shop. His didymium-tinted lenses allow him to see into the flames.

Ancient Art Flourishes in Nuclear Age

Sandia's Scientific Glass Shop

A green glass rod which dated back to 2600 BC was uncovered in what once was ancient Babylonia. Egyptians in the 15th and 14th century BC knew how to coil threads of glass outside cores of clay to make vessels, but it wasn't until the 1st century AD that Syrian glassworkers discovered how to blow molten glass, launching the wide use of glass containers throughout the Roman Empire.

Strangely enough, some of these early techniques continue to be used even though glass technology has grown tremendously in modern times.

In the fields of chemistry, physics and electronics, demands for unusual types of experimental apparatus to meet specific needs have brought about some of the developments. Complex apparatus of glass can be made quickly and cheaply and are easily modified.

Sandia Laboratories' glass shop came into being nine and a half years ago. Ronald D. Snidow, supervisor of Scientific Glass Section 4221-4, has seen it grow into a full-scale scientific glass operation, equipped to meet the demands of R&D organizations for very sophisticated, diverse and intricate apparatus.

"Regardless of size of the finished project," Mr. Snidow says, "the biggest job is planning the work, deciding upon the process, and determining a method of approach. To accomplish this, a person must know the limits of the materials and various techniques.

"Sometimes it is difficult to match materials with applications," he adds, "but this difficulty can be circumvented to some degree by designing around the desired specifications. The finished object might not resemble what we started out to build; but with such versatile material, you are only limited by your imagination."

The scientific glassblower works with rods and tubes of various thickness and composition, and an assortment of simple flasks and jars. The storage area adjacent to the glass shop contains 18 kinds of tubing. The most popular material is a low-expansion, chemically-resistant glass developed in 1912 by American technologists.

"Fused quartz, the second most popular material, has the characteristics mentioned above as well as high temperature capabilities," Mr. Snidow explains. "After being heated to 1000°C, it can immediately

be quenched in ice water." This material is suitable for containers for semiconductive material.

There are also glasses containing uranium for making seals to tungsten. Other glasses are stocked for making seals to such metals as molybdenum, platinum, copper, stainless steel, and other glass-to-metal sealing alloys.

Sandia's shop contains seven lathes used as holding and turning devices; this small degree of mechanization merely aids the blower in applying his special skills. The lathes range in size from those suitable for working on very small items to one capable of holding a bell jar 18 inches in diameter and 36 inches long. The glass parts are heated by hydrogen-oxygen flames from multiple burners or from torches, some of which are controlled by blowing through a hose. "Where contamination is a health consideration, inert gases are used," Mr. Snidow adds.

Once the glass is softened, it can be reshaped with carbon paddles and reamers, bent, twisted, constricted, enlarged, fused together, and combined with metal seals. The glassblower maintains tight tolerances by controlling the heat of the flame and the internal pressure of the piece being formed.

The shop contains three furnaces for annealing (heating and cooling cycles which make the glass less brittle) the finished product. There is also a vacuum processing station where a glass article can be evacuated of air and then back-filled with rare gases. These units are used to monitor pressures in xenon flash lamps, and helium, argon and neon lasers.

Other equipment includes "wet" sanders, saws and vapor blasting devices; an optical polishing unit (a six-inch focal length mirror was recently ground and polished); a pill press to pre-form powdered glass for development-type connectors; diamond-tipped tools for making intricate shapes; and a chemical silvering unit to give glass a conductive surface.

A new piece of equipment is a "wet" hydrogen furnace used to process metal parts in an inert atmosphere in making glass-to-metal seals.

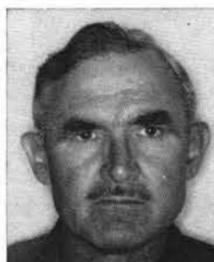
"One of our most difficult jobs was

creating a fine particle oxide apparatus from fused quartz which had to be worked in extremely high temperatures," Mr. Snidow recalls. "The scientist brought in a drawing showing the dimensions and orifices. Once we knew what he wanted to do with the equipment and determined how this could best be accomplished, it was possible to attack the problem piece by piece. Even so, it took 40 hours to make the apparatus."

Other items calling for a high degree of technical ability have included mercury diffusion pumps precision bore tubes, vacuum-formed rolamite cases which had to meet extremely close tolerances, and a high-strength glass cover for a vacuum probe which was pre-stressed to explode when a sampling rocket reached a specific altitude.

So what do glassmakers do on vacation? Well, when Mr. Snidow was recently in Juarez on a holiday he stopped at several glass factories to watch the Mexican glassblowers. "Their approach," he says, "is basically artistic; whereas, ours calls for a high degree of art combined with technology. The applications of their finished product are far removed from the applications of our products. The common denominator, however, is the ancient art of the shaping of molten glass."

Death



Earl G. Smith, a model instrument maker in Machine Shop Division 4253, died Aug. 13 after an illness. He was 55.

He had worked at Sandia since November 1956.

Survivors include his widow, a daughter, his parents, one brother and four sisters.

Earl Simonson

Wagon Train Vacation Recalls Pioneer Values For Earl Simonson

Earl Simonson (4122) spent part of his recent vacation with a wagon train traveling across the prairie near Sidney, Mont. The dozen covered wagons and about 50 horse riders in the train helped to recapture the spirit of the pioneers who settled the Montana plains in the late 1800s.

The event was part of the Fourth of July celebration at Sidney.

"Sidney is a small town of about 5000 persons. About 20,000 were in town for the Fourth of July fair," Earl says. "Back there the Fourth of July means something. Patriotic displays are linked to both the pioneer spirit that settled the land and to the accomplishments of a lifetime of hard work."

Earl's family homesteaded near Sidney and he grew up on the ranch there.

"Small towns are great," he says. "I like Albuquerque and wouldn't live anywhere else. But I go back to Sidney with my own family every summer. I enjoy the 'belonging' that everyone feels in a small town. It's the same kind of feeling the group shared on the wagon trains."

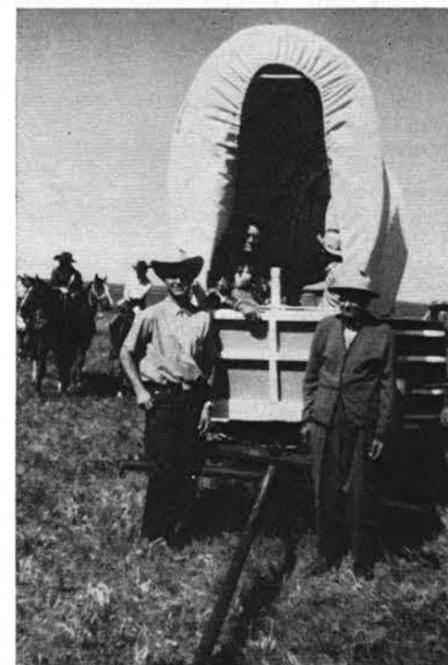
The wagons covered about 18 miles from sunup to sundown, taking time out to beat off an Indian attack staged for the benefit of the kids.

"That night we formed the old protective circle of wagons and built a huge bonfire. The barbeque was great and afterwards the oldtimers took out their fiddles and guitars and we had an old-fashioned dance.

"It seems to me that one of the things the pioneers had that maybe we've lost here in 1968 is the feeling that people are important. They had to rely on each other to survive. For example, when one of the wagons got stuck crossing a creek, we all pitched in to dig and haul it out. Then, tired as we were, we could still celebrate and share some fun."

The train made a triumphant entry into Sidney in time to join the big parade.

"The band was playing, flags were waving, the kids screaming," Earl says, "I felt great. This was the Fourth of July and I was an American with a heritage."



EARL SIMONSON (4122), left, with his father stands by covered wagon during part of recent journey across Montana plains.

Events Calendar

Aug. 23—"The Elixir of Love"; Aug. 24, "Madame Butterfly," Santa Fe Opera.

Aug. 23-25 — Shakespeare's "Twelfth Night," Corrales Adobe Theatre.

Aug. 23-24—"The Odd Couple," Santa Fe Theatre Co., Greer Garson Theatre.

Aug. 25—Fourth Annual La Luz Trail Race, from north of Juan Tabo picnic area to crest and back.

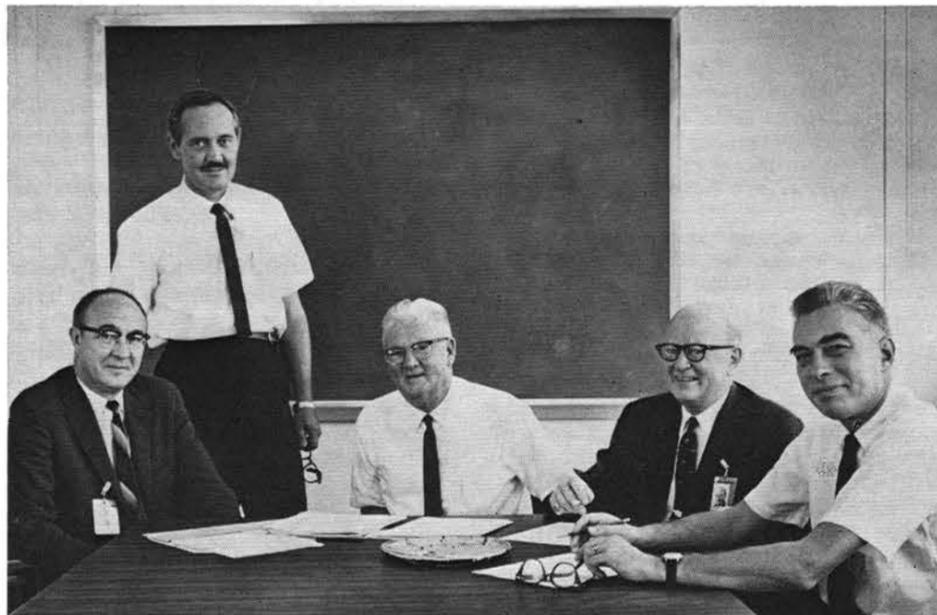
Aug. 30-Sept. 2—Santa Fe Fiesta.

Sept. 2—Fiesta at Acoma Pueblo.

PAGE TWO

SANDIA LAB NEWS

AUGUST 23, 1968



VISITS SANDIA—Arthur P. Clow, Western Electric Company vice president, head of WE's Defense Activities Division, and a member of the Sandia board of directors, visited Sandia Laboratories recently to confer with company officials. From left are R. B. Powell (3000), D. S. Tarbox (3200), C. W. Campbell (4000), Mr. Clow and President Hornbeck.

SANDIA LAB NEWS



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Youth Opportunity Campaign

Livermore Lab YOC Trainees Discuss Program's Benefits

Fourteen students were hired at Livermore Laboratories this year for temporary summer jobs and training experience under the President's Youth Opportunity Campaign (YOC) to help students continue their education. The SANDIA LAB NEWS interviewed five of these trainees to learn how the YOC program is helping them.



Joan Edwards

Typist clerk, Library Division 8232; graduated from Livermore High School in June; will attend University of California at Davis in the fall, majoring in liberal arts.

"I never dreamed such a job existed when I took typing at Bishop O'Dowd High School. When I first came to the library, I did a lot of keypunching so I'd understand the program for using the only data encoder here at Sandia. Using the machine has been so interesting because I have a definite goal to reach. Every two weeks my work goes to the Optical Character Reading Machine in Albuquerque for input. Since this is my first job, I'm happy about the responsibilities I have been given. It's fun working with people who are older—everyone is so friendly that I feel right at home. After this summer experience I may decide to study data processing or teaching at Davis."



Wayne Wahaski

Reproduction equipment operator, Drawing Reproduction Section 8253-2; returns to Livermore High School in September for senior year.

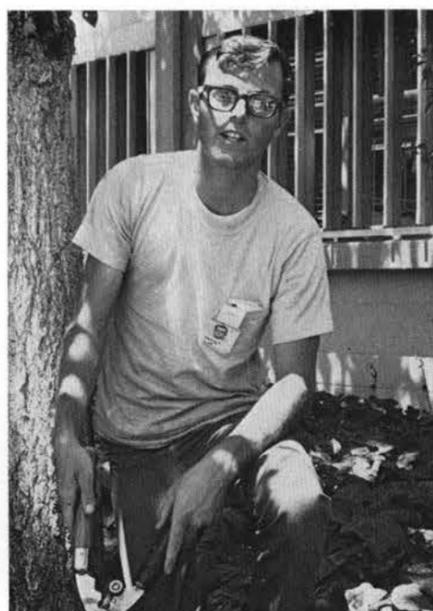
"I'm getting some good experience this summer, and I really like the work. As a reproduction equipment operator, I've learned how to use the various machines associated with the job. I'm working summers while going to school to save money for my education. In my three years of high school, I've taken all of the drafting courses offered at Livermore High, and when I graduate I would like to go on to college, preferably Cogswell Polytechnic College in San Francisco. However, I've also been considering becoming an electrician, and then there's the service I must think about."



Gloria Ramil

Typist clerk, Information Distribution and Typing Services Section 8242-1; graduated from Granada High School in June; will attend Chabot College in Hayward in the fall, majoring in business administration with a minor in education.

"This is my first job, and I'm learning something new nearly every minute — not just basic things like how to type forms. I had some erroneous ideas about working, but I find it's not at all as I had thought — I really enjoy it, perhaps to a large extent because of the people here. They are very friendly and so willing to help out. At first I was nervous but everyone put me at ease. I feel I was lucky to get into the program, and with the money I'm earning, plus the scholarship I just received from the American Business Women's Association in Livermore, I'll be able to pay for my books and other expenses at Chabot. My plans are to teach business in high school."



Ronald Glaum

Laborer, Steam Plant Refrigeration and Painting Section 8222-1; graduated from Soquel High School in Santa Cruz; senior at Cal State in Hayward, majoring in mathematics.

"This is the greatest summer job I have had. After a year of studying it is relaxing to be working outdoors. Lacking previous experience in gardening, I'm glad to be taught by men who know so much about it. I've been meeting and working with people from different backgrounds. Knowing and understanding each other has been of real value to me. This summer I have thought a lot about Sandia and the type of work it does. It seems so interesting that I plan to look into the possibility of a job here when I graduate from college."

LIVERMORE NEWS

VOL. 20 NO. 17

SANDIA LAB NEWS

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Take Note

Leo Gutierrez, director of Systems Development 8100, was guest speaker at a recent meeting of the Rotary Club in Livermore. He discussed "Sandia's Role in the Atomic Energy Program and the Effect of Spinoff or the Non-nuclear Benefits from Nuclear Development." His presentation included a showing of the film "Sandia Spinoff." Roy Wilcox, supervisor of Mechanical Design Drafting Section 8252-2, was program chairman for the meeting.

Employees who have technical books and journals which they no longer want are reminded that LRL continues to offer the opportunity of contributing to international friendship through the People-to-People program.

Cartons for donations are located at collection centers in the LRL cafeterias. Material donated is picked up, sorted, packed and shipped by People-to-People volunteers. The books and journals are sent to universities, colleges and libraries in such countries as Pakistan, India, Burma, the Malayan Peninsula, Thailand, Indonesia and the Philippines.

The fact that some of the publications may seem outdated does not matter, since most of the basic information they contain is still valid.

Sympathy

To Jim (8121) and Ruth (8212) Bauman for the death of Jim's mother in Mt. Vernon, Ind., July 28.

To Helen Bond (8232) for the death of her mother in Livermore, Aug. 1.

To Betty Clark (8223) for the death of her mother-in-law in Eureka, Calif., July 28.

To Regina Kamp (8161) for the death of her father in San Jose, Aug. 3.

To Alan Richards (8323) for the death of his father-in-law in Tracy, July 18.

To Bob Chapman (8172) for the death of his father in Eugene, Ore., Aug. 12.



Marilyn Gee

Data processing clerk, Computer Operations Section 8322-1; June graduate from Livermore High School; will attend Chabot College in Hayward in the fall with a major in general education.

"The program is giving me experience that I can use later on. I plan to go to Chabot College for two years and then on to California State to earn my credentials to teach in childhood education. This job will give me good work experience and will qualify me for other summer jobs while I'm getting my degree. Here at Sandia I'm learning how to operate some of the data processing equipment. I appreciate this opportunity, for some girls I know are going to business school to learn this, and I'm learning and getting paid at the same time. The money I'm earning will go toward next year's school expenses."

John R. Costello Earns Master's Degree In Business/Management



John R. Costello (8154) was recently awarded a Master of Business Administration degree in industrial management from the University of New Mexico. Title of his thesis was, "An Investigation of the Kolmogorov - Smirnov Method of Data Validation to Reduce Buyer Inspection Costs."

Now assigned to Project Engineering Division 8154, John is working on environmental test projects. He joined Sandia Laboratories Albuquerque in September 1957. From 1957 until his transfer to Livermore in February 1968, he had been assigned to the quality assurance and quality control organizations. He received his BS in mechanical engineering from the University of California Berkeley in 1937.

All graduate courses were completed under Sandia's Educational Aids Program.

Retiring



"My main hobby is traveling, so, the first year of my retirement I expect to spend touring the United States," says Wilbur L. Miller, of Training, Benefits, and Records Division 8214, who retires Aug. 31 with 15 years of service. "My wife and I have bought a self-contained trailer and after we 'see America first,' we hope to extend our travels to Mexico and Canada."

Wil joined Sandia Laboratories in August 1953 as an electrical engineer in the Operations Division at Fairfield Air Force Station in California. In January 1956 he was promoted to section supervisor of the Technical Section at the site, and in November 1959 transferred to Employee Training and Education Division in Albuquerque. In January 1963 he transferred to the training organization at Livermore Laboratory.

He received his BS degree in electrical engineering from Washington State University in 1953. "I was 'older' at the time I received my degree and I remember well two of my three grandchildren attending my graduation," Wil recalls.

"Since we are retaining our home in Livermore, I plan to take on some civic activities here," Wil says, "although my daughter who works with the urban renewal program in the Bay Area says she has numerous projects lined up for me."

"I'm also looking forward to becoming active as a ham radio operator again," Wil added. "During the time I worked in Alaska back in the forties, I spent a lot of my free time on the air. Now I'd like to be able to use radio communications when we're traveling in remote areas, especially in the event of an emergency."

Welcome . . . Newcomers

July 15 - Aug. 16

California	
*Ann L. Bennett, Livermore	8322
*Betty A. Dietrich, Livermore	8242
Sandra K. Harris, Livermore	8242
*Anna M. Isham, San Ramon	8253
William A. Jordan, Livermore	8242
*Melvin A. LaGasca, Stockton	8252
Anita May Lee, Livermore	8322
Theodore C. Mamaros, Livermore	8312
*Karen J. Medeiros, Livermore	8242
Gilbert J. Oliver, French Camp	8222
Cynthia C. Rose, Livermore	8242
Antone Souza, Fremont	8222
New York	
*James A. Smith, Pittsford	8214
Transfers from Albuquerque	
Carl W. Childers	8168
Paul R. Dodge	8313
Sam T. Mancusco	8212
Donald L. Markyell	8164
Paul O. Matthews	8215
*rehire	



FINAL ITINERARY is checked by (l to r) Wade Kropf, Gene Jeys (7611) Tim Lindsey, and his father Bob (2622) before the Scouts and their leaders start off on a 4000-mile-trip to Canada. The Scouts earned money to purchase their bus.

Canada Here We Come! Self-Sufficient Scouts En Route

A 4100-mile trip in a converted school bus with 48 Boy Scouts. Wow! That's no vacation; that's a labor of love.

The group left Aug. 9 on the 16-day trip which will take them through the Black Hills of South Dakota, to the site of Custer's last stand in Montana, across the Canadian border to Calgary and Banff, back through Glacier National Park, the Tetons, Yellowstone, Salt Lake City, Bryce Canyon, Glen Canyon Dam, and Canyon de Chelly.

The boys were accompanied by a number of Sandians — Gene Jeys (7611), R. C. Lindsey (2622), R. R. Boyd (4512), A. R. Hoffert (7611), Burnell Tiefs (9421), Leonard E. Baker (1223), F. R. Bentz (4373), and Max Lopez (4575).

"This is not just the ordinary vacation trip," Gene Jeys explains. "The boys have worked hard for the privilege."

For the past year the members of Troop 4 (and a few from Troop 434) have been gathering and selling scrap newspaper (it is used as a binder in gypsum products).

One week end they accumulated 35 tons of paper. In addition, they also had a tree digging project which involved transplanting and selling evergreens from the Jemez mountains. With the money from these projects, the Scout troop was able to purchase a 1958 Dodge bus, which has been modified to meet their needs. In spite of their efforts, additional funds were necessary to subsidize cost of the trip — the out-of-pocket cost to each boy was \$40. "Without these projects, however, many of the boys could not afford such a trip," Gene says. To qualify for the trip, each Scout was required to advance one full rank since last November and to complete a certain amount of work on his World Brotherhood Badge. The boys range in age from 11 through 18.

Such an extensive trip with a bus load of Scouts is "old hat" to Gene. He has arranged and accompanied similar excursions to Monterey and Tampico, Mexico, the Grand Canyon, and southwestern Colorado.

Long Distance Cooperation Needed As Statisticians Head Across World

There's a strong possibility that a technical journal may one day publish an article written by William J. Zimmer of Trinity College, Dublin, Ireland, and John J. Deely of the University of Canterbury, Christchurch, New Zealand, that will be based upon work done by them at the Sandia Laboratories in Albuquerque.

Their similar interests have existed since both worked on advanced degrees at Purdue University before joining Sandia where they have been assigned to Statistical Research Division 1723. As to the long-distance co-authorship, they explain, "We have several ideas we want to carry on to completion."

Come September, the two will be headed in opposite directions. Bill has been awarded a Fulbright Lectureship to Trinity College where he will teach courses in mathematical statistics. John has accepted a three-year appointment to teach mathematics and statistics at the New Zealand university.

Trinity College, founded in 1591, now has approximately 4000 students. Its new statistics department will open this fall. Plans are underway to join traditionally Protestant Trinity College with the University College of Dublin, which is Catholic.

"The school year in Ireland runs from Oct. 20 to June 1 followed by a month of examinations. There is no semester break, but there are very long Christmas and Easter vacation periods," Bill explains.

During his nine years at Sandia he has also been a visiting lecturer at the University of New Mexico. Bill received his BS degree from St. Joseph's College (Indiana) and MS and PhD degrees in mathematical statistics from Purdue University.

John will face a different situation in New Zealand. Although the University of Canterbury is the second oldest institute of higher learning in the country, it was founded less than a century ago. By 1973, when its centennial will be observed, the school will have entirely relocated onto a 170-acre tract three miles west of the original site in Christchurch. It has a full-time academic staff of 300 and more than 5000 students.



J. J. Deely

W. J. Zimmer

"I had a strong desire to go abroad," John says, "to widen my perspective. My ignorance of New Zealand tended to stimulate my curiosity about the country."

With his wife and five children, he will live in a city roughly the size of Albuquerque and situated near beaches yet within view of the Southern Alps, which rise to more than 13,000 feet.

"The head of the math department is G. M. Petersen, who taught at UNM from 1957-59. The department has a good reputation and I hope to do some consulting with engineering groups as well as find the time for research," he says.

John's MS and PhD degrees are also from Purdue; he received his BS degree in electrical engineering from Georgia Institute of Technology. He has been at Sandia three years.

Speakers

J. L. Colp (9327), "Penetration of Terrestrial Materials by Instrumented Projectiles"; W. B. Pepper (9324), "The Trailing Camera Technique," joint meeting of American Astronautical Society and the AIAA, July 16, Denver.

R. I. Butler (7342), "Initiation of Explosives with Long Exploding Bridge Wires"; M. W. Sterk (7324), "A Centrifuge-Vibration Facility"; N. R. Keltner (7323), "Thermal Imaging Devices"; D. O. Smallwood (7324), "Sandia Acoustic Test Facilities and Techniques; a Multiple-Shaker Facility," 15th meeting of the IMOG Subgroup on Environmental Testing, Aug. 13, Las Vegas, Nev.

C. J. McGarr (4600), "Value of Membership in the New Mexico Business and Manufacturer's Association," NMB&MA, Carlsbad chapter, Aug. 10.

P. J. Chen (1721), "Thermodynamic Influences on the Propagation and the Growth of Acceleration Waves in Elastic Materials," Transducer Division of the Naval Undersea Warfare Center, Aug. 22, San Diego.

C. S. Williams and J. A. Cooper (both 2625), "Antenna-Polarization and Terrain-Depolarization Effects on Radar Return from the Ground," WESCON Technical Committee, Aug. 22, Los Angeles.

Authors

W. E. Alzheimer (1541) and R. T. Davis (9341), "Unsymmetrical Bending of a Prestressed Annular Plate," August issue, Journal of the Engineering Mechanics Division, PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS.

L. J. Vortman (9111), "Craters from Surface Explosions and Scaling Laws," July 15 issue, JOURNAL OF GEOPHYSICAL RESEARCH.

O. E. Jones (5130) and J. R. Holland (5272), "Effects of Grain Size on Dynamic Yielding in Explosively-Loaded Mild Steel," August issue, ACTA METALLURGICA.

D. A. Northrop (5154), "Vaporization of Lead Zirconate-Lead Titanate Materials. II. Hot-pressed Compositions at Near Theoretical Density," July 21 issue, JOURNAL OF THE AMERICAN CERAMIC SOCIETY.

L. R. Edwards (5131), "Electrical Resistivity of Some Dilute Gold-Rare-Earth Alloys," Vol. 39, No. 7, JOURNAL OF APPLIED PHYSICS.

R. W. Rohde (5133), "Stress Relaxation in Nickel Single Crystals Between 77-350°K," Vol. 39, No. 7, JOURNAL OF APPLIED PHYSICS.

R. E. Cuthrell (formerly 5433), "Epoxy Polymers. IV. Impact-Induced Voltage Generation," July issue, JOURNAL OF APPLIED POLYMER SCIENCE.

Congratulations

Mr. and Mrs. E. D. Zaffery (9213), a son Phillip Charles, July 28.

Mr. and Mrs. Nigel Hey (3431), a daughter, Jocelyn Anne, Aug. 18.

Trouble Shooter for Secretaries

Marilyn Little is Girl Friday's Girl Friday

When a secretary has a work-related problem, whom can she turn to? Well, most of the time it is her section supervisor; however, if it's a problem related to office procedure, the broad shoulder may belong to Marilyn Little (3126).

Although officially tagged "secretarial services secretarial assistant," Marilyn is better known as a trouble shooter for the technical problems of a secretary's job—such things as security procedures, handling of classified documents, preparation of correspondence or official forms.

One of the handiest tools for carrying out this activity is a publication called "SWAPS," an acronym for Secretarial Writings and Professional Standards. It has appeared monthly for the past year and a half.

"Half of the items," Marilyn says, "are suggested by the secretaries. Some of these are tips that they have found useful in their work and would like to pass along to others." The balance of the items are the result of contacts Marilyn has made with Sandia service organizations: Business Methods, Technical Libraries, Mail Services, Security, and Graphic Arts to mention a few. This media is also used to acquaint secretaries with new company procedures before they are included in the Office Procedures Manual.

The items are not always of a positive nature: sometimes they are written about something that should be avoided. A recent note of this type was: "Once again we would like to remind you not to use letterhead envelopes for routing interoffice mail." Now and then an item will be marked "Clip and Save," and it is remarkable how many of the secretaries follow this advice.

SWAPS has its own information committee composed of one representative from each of the six secretarial sections. Membership is rotated every three months in order to have a fresh input of ideas. During the monthly meeting, members of the committee discuss with Marilyn



SECURITY INFORMATION specialist T. B. Hanna (3244) takes a close look at forthcoming issue of SWAPS, which is edited by Marilyn Little (3126).

items that have been suggested and decide which of these should be included in the next issue.

Circulation has reached 400, including persons outside of the 3126 division who asked to be on the distribution list.

In addition to being the editor of SWAPS, Marilyn periodically conducts a training session for the new secretaries. The four half-day sessions include a discussion of Sandia organizations, correspondence formats, classified procedures, and

preparation of travel forms and time cards. Normally, about two training sessions are held each month.

Other activities of Marilyn's—on request only—are to help set up files in division offices and to do a work-load analysis.

When it comes to advising on secretarial functions, Marilyn knows what she is talking about. She hired in at Sandia 12 years ago as a typist and was a director's secretary two years ago when she was promoted to her present job.

Take Note



J. S. Keller
1622

25 Years

Service Awards



G. W. Burnside
9122



F. D. Chavez
4233

20 Years



J. T. Dempsey
4151



Angelo Di Bella
1622

Results of the annual postal pistol and rifle matches, co-sponsored by the National Rifle Association and the National Recreation Association, show that the 16 Sandia participants gained a total of 19 trophies.

The Sandia team placed first regionally in .22 rifle and .22 pistol events and second nationally in CO₂ pistol competition. Individual winners included Dick Vivian (1611), first regionally in .22 pistol and second nationally in CO₂ pistol; David Overmier (9122), first regionally, and Don Bliss (7432), second regionally in .22 rifle; Ray Mosteller (9132), second regionally in .22 pistol; and Earle George (2444), first regionally in CO₂ pistol.



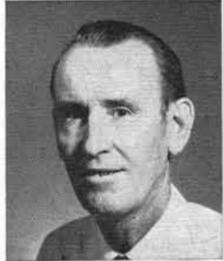
From Washington comes word of the appointment of former Sandian Paul V. Delker as director of the Division of Adult Education Programs for the U. S. Office of Education (HEW).

At Sandia, he helped to develop and conduct staff- and supervisor-training conferences. In 1962 Mr. Delker was granted a leave of absence to establish new training procedures for the Peace Corps. He later was director for selection and training for VISTA and chief of the community services and continuing education branch for the Office of Education.

15 Years



K. G. Foster
8245



J. C. French
4614



L. J. Frenkel
7431



Jeanne Jolly
4135



Jacob Barreras
7351



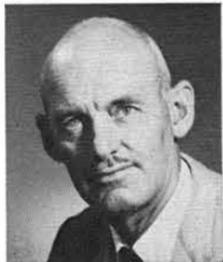
E. R. Burke
9514



R. H. Marmon
7351



H. R. Perea
4151



H. V. Riley
4212



Raul Sanchez
4623



R. M. Campbell
9411



W. F. Duben
2453



Edna Harper
3126



J. C. Reynolds
7215



W. A. Sanchez
7351



A. C. Schwarz
2342

10 Years

Aug. 23 - Sept. 5

Virginia R. Travis 7412, C. E. Shipley 7625, Mayme M. Brunacini 4131, J. D. Burkhardt 9124, C. A. Tarne 8124, B. J. King 9411.

G. P. Beller 1500, R. D. Eiler 7352, F. L. Vook 5111, H. W. Schmalte 8139, and W. B. Fleming 7414.

The Albuquerque City Commission has appointed V. O. Henning (3231) to the Civic Auditorium Advisory Board. His term will expire July 31, 1971.

The Board, which has seven members, works with the community and the municipal government to promote use of auditorium facilities and programs. It makes recommendations for additional facilities and suggests means of financing improvements.

Horsemen planning to enter any of the basic classes of Western or English riding during the forthcoming New Mexico State Fair are invited to participate in a clinic show Sunday, Sept. 1, at the Bernalillo County Sheriff's Posse Grounds on North Edith Blvd.

The clinic is sponsored by the Arabian Horse Association of New Mexico and will include judging and critique of both horses and riders. Judging will begin at 8 a.m.

Further information may be obtained from Bob Walter (7625), tel. 865-9650, or the association president, Bob Gentzler (7272), tel. 282-3425.

C. L. Kassens (9251) and W. D. Gutscher (9238) emerged doubles champions of the recent Santa Fe Open Table Tennis tournament. Mr. Gutscher was runnerup in the singles competition. Some 30 players participated.

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 Corporation 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

- WIRE CAGE, 4 1/2 x 4 1/2 x 8", \$10; twin sized roll-away bed, \$20. Southerland, 255-7822, 342C Charleston SE.
- BLONDE 6-yr. crib w/mattress, \$20. Nissen, 296-3587.
- GIRL'S 24" Sear's bicycle, \$15; 120 bass Larenti accordion, \$50. Schelby, 344-5522.
- HI FI speaker enclosures, 2 3/4" plywood Carlson enclosures w/speakers, \$100. Magee 256-1358 or Kittredge, 344-3251.
- NEW SINGLE STAGE oxygen regulator & new 2-stage acetylene regulator; trade both for a roll-about mechanics tool chest. Flowers, 282-3458.
- WESTINGHOUSE TV, 19" portable. Grimsley, 268-1427.
- RADIO/PHONO hi fi w/Heathkit amplifier, make offer. Huston, 842-9049 after 7:30.
- PAINT SPRAY OUTFIT, piston type compressor, adjustable to 100 psi & brand new gun, \$30. Fite, 255-6943.
- 3/4 SIZE German made violin w/case, music stand & books, \$40. Deterie, 299-1868.
- '68 YAMAHA 100cc. contest prize, never used, \$325. Laney, 299-8828.
- ELECTRONIC PARTS: stepping switches, relays, etc., must dispose of individually or as a group. Simpson, 299-3891 after 6.
- BABY CRIB w/mattress, \$10; Baby Tenda, \$5. Schonberg, 298-6929.
- TWO PIECE, chair & lounge, tan naugahide furniture; 21" GE portable TV, adjustable stand. Noel, 298-2142.
- HUMAN HAIR WIG, case & accessories, \$50. Few, 299-8823.
- TWIN SIZE bookcase bed, boxspring & mattress, \$75; occasional arm chair, brown upholstery, \$20; 3'x7' patio table. Brown, 255-0566.
- MINI BIKE, Briggs & Stratton engine, \$35; new tent, light weight, \$30. Peterson, 256-7514.

- AUTO. Whirlpool washer, 2 spds., 3 water temps., lint trap, soap dispenser, \$55; car top carrier, enclosed, 3'x3'x16", mounted on bars w/suction cups, straps, \$25. Anez, 299-6301 after 5:30.
- HAM GEAR, SR-150 transceiver w/AC power supply, \$320; SBE-34 transceiver, \$325. Ter Maat, 299-9151.
- ZENITH trans-oceanic "Royal 1000" radio, \$75 or trade for compact 2-wheel 1/2-ton trailer. Aaron, 282-3803.
- FLOWER POTS: all sizes up to 12", 1c to 5c. O'Neill, 255-6355.
- ROCK HOUNDS: come and get all you want, cleaning out a rock garden. Ross, 265-4990.
- PORTABLE air conditioner, cools 150-350 sq. ft. Nielsen, 242-6144 after 6.
- AUTHENTIC 1784 Ficer (German) violin at a fraction of appraised value. Mason, 299-2836.
- AUTHENTIC Brandt ranch oak, lg. buffet & hutch, light finish. Gray, 296-5028.
- WEST HIGHLAND WHITE TERRIER puppies, AKC, champion blood lines, the "black & white Scotch" label dogs, whelped July 7. Young, 255-9022.
- TDC SLIDE PROJECTOR w/case, Headliner 303, model 425, 300 watt lamp, includes 1 tray, cost \$55, sell \$38. Cano, 255-0211.
- HALF ARABIAN gelding, tall, black 3-yr-old, out of racing quarter stock on dam's side, registered; centrifugal pump w/20hp, 3-phase elec. motor, Fairbanks Morse make. Walter, 865-9650 (Los Lunas).
- PICKUP CAMPER, 8' cabover, stove, sink & ice box, \$425; portable stereo record player, \$15. Schwetzer, 298-8255.
- ONCE FIRED 20 ga. plastic shotshell cases, 2c each. Erickson, 299-6824.
- ONE WHEEL luggage trailer w/bumper attachment, \$30. Gubbels, 299-8089.
- CUSTOM MADE western saddle, \$125. Weidman, 898-0331.
- MOBILE HOME, '67 12x60' 3-bdr., 1 1/2 baths, dishwasher, built-ins, easy to finance. Craven, 268-7915 or 265-5929.
- BOWS: GROVES Magnum Hunter, Dynastressed, 54" long, 40 lb., left-handed, \$40; Groves Target Deluxe, Dynastressed, 66" long, 32 lb., left-handed, \$35. Stevens, 299-6086.
- '68 TRAVEL TRAILER, 17', sleeps 6, elec. water pump, monomatic toilet, elec. brakes, E-Z lift hitch available. McGarvie, 298-3364 after 5.
- PLAYER PIANO, Washburn, spackeled finish, in working condition, needs tuning, 12 music rolls, new bench, \$350. McEwen, 268-1440 after 5:30.
- '64 MARLETTE MOBILE, 10x50, lg. bdr., front kitchen, awning, skirts; 15 cu. ft. Sear's chest freezer. Bashaw, 298-7331.
- KENMORE sewing machine, maple cabinet w/matching chair, many extra attachments. Leech, 255-0265.
- TERRAZO TILE, 100 sq. ft., light gray & pink, \$25. Romero, 344-0302.

- '65 SUZUKI 150cc, \$150; factory-built A-frame trailer w/center steel I-beam, 15" tires, hydraulic brakes, \$150. Shock, 877-3728.
- BOAT, '68 Larson Volero, 17' 7", 160 hp Mercuriuser, I.O. drive on trailer, \$3700. Burkhardt, 256-3310.
- MALE TOY MANCHESTER (black & tan) puppy, 8 wks. old, AKC, 4-5 lb. adult weight, \$100. Morgan, 299-2850.
- 6-YR.-OLD reg. 1/2 Arab. mare, excellent child's horse; reg. 3/4 Arab. yearling filly. Snidow, 1-636-2633.
- DRAFTING TABLE w/5' slide bar, \$80; file cabinet, 4-dr., letter; TV & radio tubes, 150 for \$100; test equipment & parts, make offer; NARCO Mk2 26-crystal omnigrator w/power supply, \$200. Bascom, 299-9044 or 255-4772.
- SIMMONS STUDIO COUCH, blue & green Scotch-guard print, bolster cushions, makes into dbl. bed. Corll, 255-1186.
- GYM MASTER TRAMPOLINE, 1 yr. old, nylon mat 5'x11", best offer over \$150. Bowen, 242-7339, after 5:30.
- TAPPAN gas range, window oven door, new, \$85; bookcase bunk beds, \$75; steamer trunk, \$20; Maytag wringer washer, new, \$90; Zenith 21" TV, '68 model, \$110. Browne, 344-6343.
- '65 MODEL, 17' travel trailer, sleeps 6, 12 volt lights & water pump plus other extras. Singleton, 299-1613.
- MOTORCYCLE, '67 Yamaha twin 100, less than 1000 miles, adult owner, \$295. Hughen, 296-2600.
- EXA CAMERA, 90mm lens, \$25; 35mm preset Spiratone lens, \$18; Kodak 35, \$15; wide angle, telephoto lens, \$15. Slesinger, 299-4626.
- AIRPLANE, 1/4 interest, J-model Bonanza, just overhauled, always hangered, many extras. Schwoebel, 268-6440.

CARS & TRUCKS

- '67 427 CID Corvette Stingray, 4-spd. trans., Positraction & extras, \$3600. Gerst, 265-7264.
- '65 DODGE Coronet 4-dr. station wagon, 9605 Gutierrez Rd. NE, Christiansen, 298-2658.
- '63 CADILLAC, one owner, silver grey, fully powered, \$1600. Armijo, 877-3227.
- '63 STUDEBAKER wagon, air, radio, PS, sliding roof, new paint, \$600 or offer. Green, 256-0924.
- '50 INTERNATIONAL 3/4-ton pickup, 4-spd., make offer. Gomez, 256-1584.
- '63 FORD, low mileage, 4-dr., V8, AT, new AC, \$695. Hutchison, 298-2077.
- '59 FORD, AT, PS, PB, \$295. Chavez, 298-0674.
- '53 CAD, motor recently overhauled, best offer, consider trade. Fossum, 255-0535.
- '59 RENAULT DAUPHINE, \$150 or well consider trade up. Randall, 299-3935.
- '65 PLYMOUTH FURY I, 4-dr. sedan, AT, PS, V8, PB, book \$1180, asking \$895. Gustafson, 299-3270.

- '67 MUSTANG, 9500 miles, deluxe extra features, AC, AT, disc brakes, deluxe interior, vinyl roof, \$2500. Shepherd, 299-9066.
- '65 Fairlane station wagon, PS, PB, AC, AT, one owner. Bartlett, 299-4861.
- '67 WINNEBAGO 19' self-contained, sleeps 4, on 1-ton Ford P-350 chassis, 12,000 miles, \$5500. Lewis, 255-3483 after 5:30.
- '58 EDSEL 2-dr., new tires, \$175 or best offer. DeLuca, 299-9804 after 5 or 299-1458 before 5.
- '66 FORD GALAXY 500, AC, PS, PB, P seats, 13,000 miles, below book at \$1650. Rowlette, 265-4331.
- '67 OLDS 98, 4-dr., PB, PS, AC, P seats, tinted glass, new tires, 22,000 miles. Sheaffer, 255-9473.
- '64 CADILLAC, \$2075. Cooke, 296-4073.
- '67 CHEVROLET BEL AIR V8, 3-seat station wagon, AC, AT, PS, PB, 327 engine, etc., 15,000 miles. Hart 299-8832.
- '53 WILLY'S station wagon, 2-wheel drive, \$75. Hawk, 1821 Florida NE, 256-6264.

REAL ESTATE

- 3-BDR. & DEN Mossman, AC, carpet & hw/f., sprinklers, lg. screened patio, near schools, 5 1/4% FHA appraisal \$19,675. Allen, 256-3234.
- LOT, 190'x150' South Valley between Arenal & Blake, 3 blocks East of Foothill, \$3500. Benton, 877-2473.
- 5-BDR., 3-bath, mother-in-law quarters adjoining, 2 fireplaces, shop, study, landscaped, zoned heat, AC, courtyard, paneled den \$33,800. England, 296-1367 or 299-7849.
- UNUSUAL, exposed beams, flagstone FR, 2 fireplaces, lg. rec. rm., 3-bdr., 1 1/2 baths, extras, Fatima area, \$24,350. Hill, 268-1420.
- RECREATIONAL ACREAGE: 1 to 9 acre river frontage lots located on Rio Blanco River, close to Navajo Lake and other smaller lakes, low down. Dirnberger, 298-5172.
- 3-BDR., 1 1/2 baths, FR, AC, carpet, drapes, fruit trees, low down. Gragg, 298-0267.
- LARGE ESTATES, absolutely private mountain community near Placitas in Sandoval County. Stueber, 299-2414.
- RANCHOS DE PLACITAS, 1.59 acres, view, water & electricity, \$2450. Chandler, 256-6415.
- 3-BDR., 1 1/2 baths, den, fp, AC, new paint, new carpet LR & master bdr., \$16,950 total, will take contract. Syme 298-9167, 11005 Phoenix NE.
- PRIVACY, Tijeras Canyon, 4-bdrs., 2 baths, adobe portal, dbl. garage, 2 acres, appraised, will finance, \$37,500, more acreage available. Schuetz, 282-3486.
- 3-BDR., 1 1/2 bath, den, fp, dbl. garage, \$18,500 total, \$1900 down or terms, 516 Hillview Ct. NE. Watkins, 298-3667.

- 2 1/2 BDR., hw/f., lg. lot, new roof, AC, 11x21' patio, \$79 taxes & insurance included, assume \$6800 mtg., substantial down, will carry REC. Lomas & N. San Mateo, call first. Fisher, 265-0626.
- 3-BDR., lg. LR, DR, screened backporch, garage, storage rm., 220 wiring, w/elec. range, 8036 Hannett NE. Barrett, 268-2963.
- 3-BDR., 1 1/2 baths, Roberson, carpet, marble patio w/10x20' cover, redecorated, landscaped, storage, Bumgardner, 877-5422.
- BRICK 3-bdr., 1 1/4 tiled baths & kitchen, carpet, NE location near schools, shopping centers & churches. Assume 5 1/4% FHA w/\$67/mo. P&I or other financing. Benson, 299-3315.
- 40 ACRES in Manzano mountains, commuting distance to Sandia. Causey, 299-0089.

WANTED

- BABYSITTING in my home, hourly, daily, weekly. Ortiz, 600 Tomasita NE, 298-0167.
- TWO-METER HAM equip., will trade or sell B&W TV, telephones or mobile xmtrs. Cave, 299-5066.
- RIIDE from Adobe Acres (Donald Rd.). Holcomb, 877-1602.
- WADERS & other fly fishing equipment. Ross, 265-4990 after 6.
- WOODEN DESK, preferably oak, reasonable. Schelby, 344-5522.
- TRADE Liberty head nickles and 1842 large penny for other coins. Henry, 282-3458.
- TRADE: '55 Pontiac station wagon & extra wide single horse trailer for tandem two-horse trailer. Wladika, 255-9166.
- WOLLENSAK 1500 series tape recorder; used compost shredder. Gustin, 256-3807.

FOR RENT

- 3-BDR., 1 1/2 baths, garage, 1029 Florida SE, landscaped, stove, carpeted, no pets, water, garbage paid, \$150. Smith, 298-7365.
- UNFURNISHED 3-bdr., 1 1/2 baths, adobe home on 4 1/2 acres, barn, corral, alfalfa, \$250/mo. Patterson, 877-3158.
- EFF. APT., \$65; 2-bdr. house, \$89, 306 Texas NE. Bascom, 299-9044, 255-4772.
- UNFURNISHED 3-bdr., 1 1/2 baths, garage, stove & refrig., near Base in N.E. Heights. Baca, 255-8452.

LOST AND FOUND

- LOST—Cross pen, fob on key chain, Bulova watch w/diamonds, clip-on sunglasses, Rx sunglasses in black case, Rx glasses in blue case, man's ring. LOST AND FOUND, tel. 264-2757, Bldg. 610.
- FOUND—Cross, white sweater, Rx glasses w/black frames. LOST AND FOUND, tel. 264-2757, Bldg. 610.

