

New Accelerator Planned for Sandia Lab

Sandia Corporation LAB NEWS

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R. H. Richardson
—Computer Aid and inventor—

Sandia Draftsman Solves Problem By Designing Co-Ordinate Computer

Robert H. Richardson, a draftsman in Design Definition Section 4411-6, always had trouble computing the location of varying number of holes equally spaced on a circle.

The usual way of figuring the circular unit bolt patterns (used in laying out bolt hole patterns, electrical connector pin locations, etc.) was tedious, time consuming and open to error. Bob decided to attack the problem at the base and try to develop a chart in convenient form which would do the job.

Bob received encouragement from his supervisor, John Puhara, and also suggestions. Two months after he started, the mathematical calculations were checked out on an IBM computer and the first model was drawn by Technical Art Division 3463.

Sandia Corporation ordered 100 of the Co-Ordinate Computer Aids for distribution to employees in the drafting organizations at both Sandia and Livermore Laboratories. Several are also in use in the machine shops and in the Printed Circuitry Section.

The device is now being produced commercially by a firm in Texas and has received mention in several magazines, including *Machine Design*, *Electrical Design News* and

Winners Named in Horseshoe Tourney

Winners of the recent Livermore Laboratory Horseshoe Tourney were Leo Adams (8225-2) and D. B. "Red" Sparger (8225-3) with a team score of 52. Runners-up were Rex Richardson (8234-3) and Charlie Romano (8234-2). Trophies were awarded to the two teams by Employee Services, 8212-2.

Technical Papers by Sandia Employees Presented at Eastern Symposia

Two technical papers by Sandia Corporation authors were presented last week at the Western Electric Company Casting Resins Symposium held in the Merrimack Valley Plant, North Andover, Mass.

A. J. Quant (1625-1) presented "Dichlorobenzidine as a Curing Agent for Adiprene." Ben Carroll (also 1625-1) presented "Transparent Cold-Shock Resistant Epoxy Casting Resin."

A paper by L. K. Jones (1621-3) was presented at an Electrical Contacts Seminar at Pennsylvania State University this week. Title

Sandia Laboratory's All-Time AEC Safety Record Certified

An intensive audit of Sandia Laboratory's newly established all-time AEC safety record was conducted by a representative from the Washington office of the Atomic Energy Commission on May 31 and June 1. As of that time, Sandia was certified as having completed 11,616,382 employee-hours without a disabling injury.

The audit included a complete review of Safety Engineering Department records since June 17, 1959, when the record began, through June 1, 1960. Medical

records, Employee Review Committee records and payroll records were also included in the audit.

"Every employee at Sandia Laboratory should experience a feeling of pride in the part he or she played in the establishment of this record since one disabling injury could have terminated this accomplishment," A. Burton Metzger, manager of Safety Engineering Department 3210, said.

The record is continuing unbroken and as the *Lab News* goes to press, 11,805,000 employee-hours have been worked safely. Only 38 days remain to complete a full year without a disabling injury at Sandia Laboratory.

"When you are tempted to take a short cut or to perform an unsafe act through haste, chance-taking or otherwise, stop for a moment to think if it is worthwhile to jeopardize your safety," Mr. Metzger said. "Give first consideration to yourself and your family, and second consideration to continuing this outstanding record."

Design News.

Only two simple steps are needed with the aid to determine the X and Y dimensions of each point in a pattern of three to 50 points on a circle. The angle between .01 second without calculation and chord length and tangents may be easily computed.

Bob has worked for the Corporation six years and received his drafting training here.

James W. Easley New Manager of Department 1630

James W. Easley, an employee of Bell Telephone Laboratories since 1954, became manager of Sandia Corporation's Radiation Effects Department 1630 on June 11.



Mr. Easley had previously been on loan to Sandia Laboratory during the summer of 1959 while assigned to Physical Sciences Research Department 5150.

During his service with BTL he worked initially in semi-conductor device characterization and later was concerned with bombardment or irradiation damage in semi-conductors and to semi-conductor devices.

He received both PhD and Bachelor's degrees in physics from the University of California. While in California, Mr. Easley worked for several years at the University's Radiation Laboratory at Berkeley in the study of high energy neutron scattering.

of the paper was "Materials and Process Variables and Their Effect on Contact Resistance."

On June 15 Crawford MacCallum (5150) will present "Monte Carlo Calculations of Electron Backscattering" at a meeting of the American Physical Society in Montreal, Canada.

R. P. Baker (2442-2) will present "An Investigation of Long Term Stability of Zener Voltage References" at the 1960 Conference on Standards and Electronic Measurements at the National Bureau of Standards in Boulder, Colo., June 22-24.



NEW DIRECTOR of Lawrence Radiation Laboratory will be Dr. Harold Brown, presently Deputy Director of the Laboratory. He succeeds Dr. Edward Teller who has accepted a position as professor at large at the University of California, effective July 1.

Two Contracts Let by AEC for Work in Sandia Technical Areas

Two contracts for construction projects at Sandia Laboratory were awarded recently by the Atomic Energy Commission.

Reynolds Electrical and Engineering Company of Albuquerque was low bidder on a contract to construct an underground electrical system modification to supply additional power for Bldg. 865. A new electrical manhole and an underground duct for a new 2400 volt feeder from substation No. 4 to Bldg. 865 will be installed. Project will be completed about Sept. 1, and will cost \$36,700.

V. O. Easley (4543) is Plant Engineering Department project engineer.

H. E. Scott Construction Com-

pany was awarded a contract to modify Bldg. 882 for installation of a dynamic shock lab to be used by Test Laboratory Department 1610.

Seven test areas will be provided and equipment will be installed. Power, water and high pressure air will be provided to each tech area and an air conditioning system will be installed for the entire building. A substation and metal compressor building will be installed between Bldgs. 882 and 883. Cost will be \$84,500.

Estimated completion date for this project is Oct. 30, 1960. M. B. Moore (4543) is Plant Engineering project engineer.

A contract was awarded recently by the AEC for the installation of a Cockcroft-Walton accelerator in Bldg. 884. J. B. Henderson Construction Company is the contractor.

The new device, similar in size and function to Sandia's Van de Graaff accelerator, will be shared by Physical Sciences Research Department 5150 and Electrical Standards Division 2752.

The machine creates a stream of positively charged ions that can be directed into various targets. Interaction between the ions and the targets, particularly gasses, is the major area of interest of 5150. Electrons emitted from metals under ion bombardment will also be studied.

The accelerator can also produce neutrons by charged particle reaction. Organization 2752 will use this feature of the machine for calibrating neutron measuring instrumentation. In addition to calibration, some development of neutron measuring devices will be performed by 2752.

The machine differs from the Van de Graaff accelerator in that ions can be produced at much lower energy levels than can be achieved with the Van de Graaff. The Cockcroft-Walton accelerator has a maximum energy production of 250 kilovolts compared with 2000 kilovolts for the Van de Graaff.

Department 5150 research programs conducted on the new accelerator will be under the direction of G. W. McClure and Ron Ewing. Don Schreiner will be the operator of the machine.

M. C. Jones, supervisor of Frequency Standards Section 2752-1, will direct standardization programs for the new accelerator.

Cost of the new accelerator is \$90,000. Installation and accompanying construction will add \$25,000.

Project engineer for Plant Engineering Department is M. B. Moore (4543).

Scheduled completion date for the installation is July 22.

'Turquoise Trail' Booklet to Be On Racks Next Week

Distributed on the book racks next week will be an offering entitled "Turquoise Trail." The full color folder describes the primary scenic and tourist attractions of the Albuquerque area. Copies of the booklet were made available to Sandia Laboratory employees by the Greater Albuquerque Chamber of Commerce.



SIR ROGER MAKINS, Chairman of the United Kingdom Atomic Energy Authority, visited Sandia Laboratory recently. Pictured here in Bldg. 802 are (l to r) K. F. Hertford, manager, AEC Albuquerque

Operations Office; Sir Roger; Robert E. Wilson, AEC Commissioner, and J. P. Molnar. Also in the party, but not shown here, was Dr. John Gaunt, UKAEA representative, British Embassy.

Editorial Comment

Flag Day — Observe It Correctly

June 14 is Flag Day, commemorating the 183rd anniversary of the adoption of the Stars and Stripes by the Continental Congress in 1777.

National Flag Day Bill was signed into law by President Harry S. Truman in 1949 for the purpose of displaying the flag on a special day.

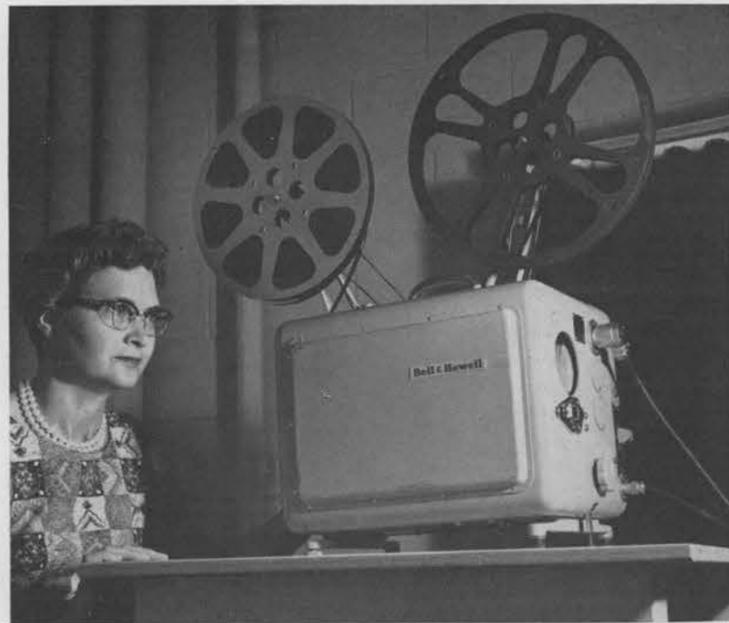
The history of America unfolds with the flag as a symbol of freedom, democracy and unity. From the time the first American flag was raised with its circle of 13 stars until the present 50 star flag, which becomes official on July 4, 1960, it has stood for what the American people believe in and fought for.

When you display a flag on Flag Day, please do it correctly. Here are the rules:

"When the flag is used without a staff it should be displayed flat and suspended so that its folds fall free. Whether horizontally or vertically hung, the union should be uppermost and to the flag's own right (observer's left).

"When displayed over a street, the flag should be hoisted out union first and so that the union is always to the north in an east-west street or to the east in a north-south street.

"When the flag is flown from a staff projecting at any angle from a window, balcony or building, the union should always be at the peak of the staff (unless the flag is at half-mast)."



Irene Mesecher
—runs projector at VA Hospital—

Sandian Who Serves

Irene Mesecher Logs Hours Of Volunteer Hospital Work

This is another in a series of articles describing the community activities of Sandia employees.

Devoting Wednesday evenings to volunteer work at the Veterans' Administration Hospital is Irene Mesecher (3423-4), who has logged almost 100 hours as a motion picture projectionist.

She had been a volunteer hospital worker in Tulsa, Okla., and when she moved to Albuquerque it wasn't long before she contacted the Director of Volunteer Services at the VA hospital to offer her services.

Like most volunteers, Irene

spends an hour or two at the hospital each week. Miss Ruth Kincare, director of volunteer services, says the hospital is anxious to secure other volunteer workers such as Irene to help with the patients either in the daytime or evening.

Persons are especially needed for educational therapy, escort service, clerical work, personal service, central supply, library work and recreation. Miss Kincare may be contacted at AL 5-1611.

Congratulations

Born to:

Mr. and Mrs. Marvin Plugge (2533) a daughter, Janet Lorraine, on May 26.

Mr. and Mrs. Stanley S. Lerner (8233-1) a son, David Alan, on May 28.

Mr. and Mrs. J. K. Cole (1322) a son, David Jefferson, on May 25.

Mr. J. Noble Johnson (3122) a daughter, Kristin Elizabeth, on June 4.

Mr. and Mrs. E. Gil Cordova (4622-2) a son, Gil, on May 28.

Belgium-Bound

Rosalie Baca, daughter of Esquipulo A. "Skip" Baca (8232-2), will spend two months in Belgium this summer under the auspices of the American Field Service organization.

She was among 10 students at Livermore high school who were considered for the international scholarship. While in Belgium she will live in the home of Mr. and Mrs. Stijnen and their 18-year-old daughter in Antwerp.

The scholarships are offered as part of an international goodwill program to further understanding between the U. S. and other countries of the free world.

Green Housewarming

An unexpected housewarming showered a palm tree, petunias, and other potted vegetation on Gene Lopp (8114-3) recently. Well wishing fellow workers in 8114 and their spouses made up the plant-carrying entourage. The greenery will help landscape the new home.



WHINGDING IN HAWAII was enjoyed by a number of Sandians during the recent Shriner's convention there. Visitors to the islands included: (l to r) Billie and Larry Johnson (1283), Howard (4232) and Margaret Reese (3262) with granddaughter of Japanese family who entertained the Sandians, "Doc" (2641) and Mary Pasko (5513), and Sid (2641) and Lois Merriam (1320).

Ol' Man River Calls

River-floating season is underway. A 10-man rubber raft was used by Howard Wicke (5126), Mr. and Mrs. George Steck (5125) and Mr. and Mrs. Don Peterson (5122) for their trip from Otowi Bridge to Cochiti Dam on the Rio Grande.

Similar area was covered by Don Morrison (5126) and George Steck and their families and Sto Bell (5122) during the following week-end.

Visit Gila Wilderness

A group from 1431 made an excursion into the Gila Wilderness area near Willow Creek over the Memorial Day weekend. Included in the fishing and camping expedition were R. C. Reineke, C. I. Votaw, E. D. Machin, J. A. Hood, C. E. Bates, E. J. Szyper and T. J. Williams and their families.

On the return trip the caravan toured over the pass from Willow Creek into the ghost town of Mogollon, once a thriving mining town.

Secretaries Meet

Four Sandia secretaries recently attended a three-day meeting of the New Mexico-Arizona Division of the National Secretaries Association. Betty Pickel (4300), Joanne Boyd (4600), Winifred Sandusky (6030) and Jo Hanna (2630) were among those enjoying the hospitality in Scottsdale, Ariz.

Livermore Home Owners

Edward H. Daugs (8143-1) has moved into his new home at 776 Adams Ave. Also a new home owner is G. A. Boeck (8143-2), who now lives at 70 Corwin Dr., Alamo, Calif.

Price Hennan (8234-3), who recently transferred to Livermore from Albuquerque, has moved into his new home at 890 Bower Court.

Another new home owner is Roy M. Tidwell (8123-1), whose address is 4138 Stanford Way.

Art Exhibit

A one-man art exhibit by Robert Burgess (5213) is currently hanging in the lobby of the Cole Hotel. The show, which will extend through June 30, includes oil paintings, and mosaic pictures utilizing Venetian glass and brass. The exhibit is open to the public.

Bad Luck Weekend

When it comes to eventful weekends, Rosemary Morrissey (2713) feels she has had it!

The other Friday evening she had to extinguish a small fire in her apartment. The following evening a waiter accidentally emptied a full pitcher of ice water on Rosemary and her companion. After dinner she returned home to find her apartment door standing open and all the lights on. Rosemary's homecoming frightened off the burglar who had gained entrance by jimmying the lock. Even so \$20 was missing from a wallet.

Sympathy

To Jack Workman (8121-2) for the death of his father in Yakima, Wash., May 21.

To Roger C. Buehler (1424-3) for the death of his father in Stonecreek, Ohio, June 1.

To Keith Weir (3111-1) for the recent death of his father in Deerfield, Ill.

To Harry Daniel (5513) for the death of his daughter on June 5.

Brazil, Germany Attract Two Sandia Employees Away for Dream Vacations

Overseas wanderlust has already hit several Sandians, with others expected to succumb to the lure of foreign travel folders before the summer vacation season ends.

Springtime travelers included Helen Conklin (5241), who spent a week in Brazil, and Hermann Wente (5141), who was in Germany for four weeks.

Helen and her husband, who is in the Air Force stationed at Kirtland AFB, drove to Charleston, N. C., where they boarded an afternoon plane. At Trinidad a two-hour stop was made so the passengers could dine and be entertained by a native steel drum band. They arrived in Rio de Janeiro in time for breakfast the following morning.

The Conklins stayed at one of the hotels along the famous Copacabana beach. In addition to seeing the many sights in Rio and visiting Sugar Loaf mountain, they spent one day touring the surrounding mountains.

A brief resume of conditions to be encountered in Rio: hotels, fabulous; food, exceptionally cheap; weather warmer than here but approaching the winter season; traffic laws ignored with resulting confusion; fashions attractive with hemlines above the knee; photographic obstacles, haze.

"The things that impressed me most were the block-long lines of workers waiting for buses during the rush hour and the custom of late dining. We were invited to a friend's house for dinner. Cocktails were served at 8 p.m. but it was midnight before dinner was

served. Afterwards Brazilians go night clubbing!" Helen recalled.

Hermann's visit to Germany was his first since he was five years old. This trip was arranged to coincide with the 90th birthday of his grandfather, who lives in Alfeld/Leine near Hannover.

From Chicago Hermann flew to Germany where he met his mother, who had traveled by ship. Together they visited a relative who lives in the British sector of Berlin. They found it interesting to compare the stark, ultra modern new buildings with the pre-war construction.

Hermann enjoyed going through one of the world's largest electrical appliance factories, where his uncle is employed, and talking to engineers.

After Berlin they traveled to Munich and made brief stops in Innsbruck, Austria, visited a friend in Schaffhausen, Switzerland, and headed north again through the Black Forest, Heidelberg, and along the Rhine River to Koblenz and Hannover.

"The birthday party was a great success," Hermann reported. "There was even a delegation from the city which came to the house to present my grandfather with a large basket of choice wines and sausages. The many other visitors brought bouquets of flowers."

Weddings and Engagements

Dorothy Clark (8212-4) was married to Chester Thompson of Livermore on Apr. 24. The afternoon ceremony was held at the Christian and Missionary Alliance Church in Livermore.

The couple spent their honeymoon in Carmel and Southern California and now resides at 522 Andrews St., Livermore.

Dorothy has been with Sandia Corporation since March 1958.

Elna Buchanan (2752) will be married to Merritt Rucker of Albuquerque today at 5 p.m. in a ceremony at the First Presbyterian Church.

After a honeymoon, the couple will be at home at 3933 Simms SE.

Elna has been employed at Sandia Laboratory five and a half years.



Lois Knudson (8212-5)

Take a Memo, Please

The more you hear about safety, the less you hear about accidents.

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Surplus Vehicles At Sandia to Be Sold at Auction

Five sedans and six station wagons have been added to the list of surplus vehicles to be auctioned tomorrow at 1 p.m. adjacent to the Sandia Corporation Salvage Yard.

The sedans include two 1956 four-door Chevrolets, two '54 four-door Fords and one '55 four-door Ford.

The six station wagons are all '57 four-door Country Sedan Fords.

As mentioned in the Lab News last issue, the sale will include sixteen pickup trucks, three 29-passenger buses, eight forklifts, and a group of other surplus equipment.

Prospective bidders must sign a copy of sales conditions prior to the auction.

Insurance Specialist Consults On Sandia's Health Care Plan



Murray W. Latimer
—Consulting on Health Care Plan—

Murray W. Latimer, a social insurance specialist from Washington, D.C., was in consultation with Sandia Corporation representatives last week concerning Sandia's Health Care Plan.

Corporation employees were informed on Apr. 14 that due to rising medical costs and an increase in the number and costs of claims, The Equitable Life Assurance So-

ciety felt it would be necessary to either increase premiums or reduce benefits.

Prior to his discussions Mr. Latimer was presented with detailed experience under the Health Care Plan and with the quotations received from the insurance carriers recently requested to bid on the plan.

Mr. Latimer holds degrees from Mississippi College and Harvard University and was on the staff at Harvard from 1923-25.

Prior to starting his practice as a consulting economist in 1947, Mr. Latimer served on committees or as advisor to many government agencies including the U.S. Department of Labor, U.S. Bureau of Labor Statistics and the Federal Coordinator of Transportation. He has testified as an expert before both Houses of Congress.

He was chairman of both the first and second U.S. Railroad Retirement Boards (1934-46) and participated in the formation of the Railroad Retirement Act of 1937 and Railroad Unemployment Insurance Act.

His other positions have included: director of the Federal Bureau of Old Age Benefits, U.S. Social Security Board, research director of the President's Guaranteed Wage Study in 1945-47, and member of the technical board to the President's Committee on Economic Security.

For the past several years Mr. Latimer has been a consultant to the United Steelworkers of America, the AFL-CIO, and Kaiser Metals Products, Inc.

Cartoons Published

A panel of three cartoons drawn by M. J. Davis (5513) appeared in the May issue of American Society for Quality Control magazine. The panel illustrated one of the Stewhart theories of quality control in connection with Project Plowshare.

New Homes

Proud new home owners are the Carl Scheibers (2532) at 6713 Dodd Pl. NE.

Dale Young (5126) is settled in a new home at 1808 June NE.

The Dick Jennings (4123) and their three daughters have moved to their new home at 2106 Erbbe.

Anne (4123) and Ed Hamilton moved in at 9104 Princess Jeanne NE on June 5.

Gloria (4123) and Joe Geibel decided lawn and house care was too much—they have moved into a brand new trailer.

Getting Well

Walt Dauphinee (2533) is recovering from major surgery at Presbyterian Hospital.

Convalescing following recent surgery is R. M. Chesnut (3126). Wishes for a speedy recovery are extended to Virginia Chavez (3153-2), who has been ill for the past two months.

Members of Division 5513 are helping make K. E. Weidner's convalescence from a recent operation more enjoyable — they presented him with a chaise longue.

Transatlantic Club

An Albuquerque branch of the Transatlantic Brides and Parents Association has recently been organized. Members are newcomers to the United States who still have close relatives in Great Britain. Anyone interested in the organization is invited to telephone either Mrs. Robert Halsey (husband works in 1282), AX 9-6418, or Mrs. Howard Jones (husband works in 1224), DI 4-9393, for further information.

Steak Fry

Approximately 100 persons attended the steak fry held by Division 1424 recently at the home of J. R. Harner (1424-2) in the San Pedro Mountains. R. O. Heinz (1424-3) was chairman for the annual outing, which included softball, horse shoes and other entertainment along with the food.

High Game

Carolyn Ann Benzing (1421) won third place with her high game of 206 scratch in the recent Teleco bowling tournament.



SARAH THOMSEN (8232-1) displays flower basket made from ice cream sticks. The sticks are being collected from Livermore Laboratory employees by Tom Jones (8162-1). Children, including Tom's daughter, attending a summer Bible school recreation program, will make baskets from the sticks. Each basket requires 250 sticks.

FM Magazine

A new FM radio schedule publication out this month is published by Robert Heller (8211-2) and his wife Shirley (8212-2). The first edition of the 64-page "FM Radio Music Guide" lists the schedules of 12 FM stations in the Bay Area, as well as "do-it-yourself" feature articles. The couple founded the magazine, Shirley said, "because we found FM programming very satisfying but weren't able to get complete listings in newspapers."

Phi Delta Theta Seeks Members

The Albuquerque Alumni Club of Phi Delta Theta is now conducting its annual membership drive. A family picnic next month will kick off several social events that are scheduled for the summer. Anyone interested is urged to contact Bill Gardner (3151-2), ext. 23160, for further information.

Proud Father

A. L. "Bud" Pearson (8222-2) is the proud father of a daughter, Pamela, born May 19. That was 18 years ago, but he's still proud. She was crowned "Miss Livermore" in a recent beauty contest.

As Miss Livermore, Pamela will reign over Livermore functions for a year, and will also serve as the official hostess of the Livermore Rodeo.

Scout Troop Honored

Color guard for the "American Youth Congress" parade last weekend was Boy Scout Troop 9, led by Scoutmaster Tom Marshall (5222). The boys were chosen for the honor over all other troops in the city.

Major League Champs

Champion of the Sandia Base Major League is the K-W Auto Supply team captained by W. C. McKinley (5534). The team defeated all comers in final bowling playoffs recently. Members of the team include W. E. Neitzel (2565), E. M. Giesecker (2632), G. A. Daniels (4413) and R. L. King (4611).



NEW OFFICERS of the American Society for Metals, Albuquerque Chapter, are (1 to r) A. W. Porter (4211), treasurer; Fred Sweet (1621), chairman; L. P. Wilson (1621), vice chairman, and D. J. Sandstrom (ACF), secretary. They were officially installed recently.

Livermore New Homeowners

Don Wagner (8212-2) has moved into his new home at 996 Redondo Way, Livermore. Other new homeowners are Vernon Ivins (8225-2) and his wife, Josephine (8212-3), whose new address is 882 Sunset Drive. It was also moving day recently for Jerry Wackerly (8213-2), whose new home is located at 3886 Pestana. Lori Doyle (8232-2) has moved into her new home at 42640 Lemonwood Street in Fremont.

In nearby Irvington, Barbara S. Reneau (8212-5) bought a new home at 41190 Thurston Street.

ASM Elects Fred Sweet New Chairman

American Society for Metals, Albuquerque Chapter, has elected officers for the 1960-61 year. They are Fred Sweet (1621), chairman; Lewis P. Wilson (1621), vice chairman; Don J. Sandstrom (ACF), secretary, and Arthur W. Porter (4211), treasurer.

Since the Chapter received its charter in 1954, membership has grown from 40 to 125. The national organization has over 30,000 members.

The local chapter has sponsored educational clinics and conferences jointly with the University of New Mexico. The first conference was held during 1955 on "Investment Castings," the second during 1957 on "Heat Tolerant Metals for Aerodynamic Applications," and a third is planned for February 1961 on "Reactor Material Applications."

The group also sponsors a local chapter at the New Mexico Institute of Mining and Technology, Socorro, and periodically arranges one-day technical programs with the student members. They have also contributed to the Pi Tau Sigma Technical Library at the University of New Mexico.

Regular monthly dinner meetings are held from September through June with technical programs presented by nationally known authorities from research laboratories and metal processing companies.



George Shelton

—toy inventor, artist, prospector in spare time—

Inventing Toys, Painting Are Part Of Many Hobbies of George Shelton

On the wall behind him was a giant mural depicting a southwestern scene. Displayed around the room was a great number of colorful watercolor landscapes. George Shelton (2721-2), artist, was playing with a child's toy. He was rolling a bright plastic ball up and down a long slotted stick.

With intense concentration he watched the ball roll almost to the end, then deftly flipped it over and the ball passed through the slot and rolled back down the stick toward the handle.

"It's a Skil-Ball-Stik," he said. "I invented it."

This project is the latest in a series of after-hour hobbies that fill George's life with adventure and pleasure. He has shown the toy at national toy expositions and several distributing companies are interested.

As an artist George's talents are impressive. He works in oils and other media but is currently working on a series of 50 historical watercolor scenes of New Mexico. He paints bright landscapes of Indian ruins, ghost towns, miner and sheepherder shacks and prospectors.

Inspiration for the series came during his journeys into the rugged regions of New Mexico pros-

pecting for uranium. As a prospector, George didn't strike it rich but he and his partner filed about 70 claims.

"It was fun and the scenery was wonderful," George says, although he does remember some bad moments. Once while scaling a steep rocky hillside, he came face to face with a mountain lion.

"The lion ran one way and I took off the other," George says. "I guess we were both pretty scared."

Prior to moving to Albuquerque and joining Sandia as a mechanical inspector, George owned a motel in Midland, Tex., and freelanced cartoons. His work appeared in the Midland newspaper and Drill-Bit, an oil industry magazine.

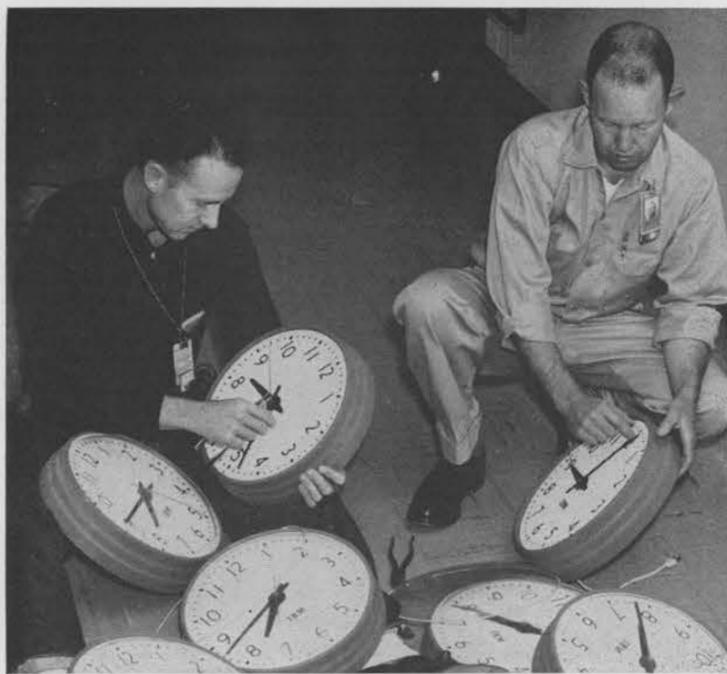
He has held many jobs from oil field worker to mural painter for the Texas Centennial Exposition. He did a life size oil painting of Will Rogers on a horse that received prominent display during the fair.

Now that he has "settled down," eight years at Sandia, George continues his many interests—painting, prospecting, hunting, fishing, cartooning and inventing toys.

"I need to keep busy," George says. "This is my recreation and relaxation."



LARGE TROPHY won by Troop 119 of the Manzano District for proficiency in camping during annual camporee recently is displayed by Scouts Melvin Bentz, senior patrol leader, left, and Tom Trowbridge. Standing (1 to r) are Sandians H. A. Singleton (1247), assistant scoutmaster; D. B. Shuster (5200), troop committeeman; and A. E. Bentz (5213), scoutmaster of the scout troop.



TIME ON THEIR HANDS. Conrad Rogers (left) and Harold Malmquist, both of the Maintenance Section A (8222-2) at Livermore Laboratory, are busy synchronizing more than 100 clocks before installation of an automatic time system at the Laboratory.

J. A. Moeller Earns Chemical Engineering MS Degree at UNM

James A. Moeller (1631) is another Sandian who will receive his Master's degree from the University of New Mexico this month.

His degree will be the first MS in Chemical Engineering awarded at UNM.

Jim received his BS degree from Iowa State University in 1954 and has been with Sandia Corporation for the past three years.



Automatic System Being Installed for Livermore Clocks

Electric clocks in all buildings at Livermore Laboratory are being synchronized with an automatic time system just installed by the Maintenance Division (8222). Plans for the installation of the system were established by the Plant Engineering Division.

When completed in June, all clocks in the Laboratory will be connected to a master clock in Bldg. 915 which will transmit time correcting signals every hour. Clocks more than a few minutes off will receive an additional correcting signal every 12 hours, according to John B. Adams of the division.

More than 40,000 feet of wire were used to connect the master clock with the more than 100 clocks scattered throughout the Laboratory.



SUSAN MAY operates the Verifax Machine while Vanty Boley runs the Azograph machine in the back. Both processes help typists speed up work completion.

Typing Pool Handles All Types Of Jobs for All Organizations

Responsibility for handling Sandia Laboratory's overload typing work rests with Typing Service Section 3126-5, which is located in Bldg. 880, Room 138.

"We provide service on all types of jobs, with the exception of publications work, for all organizations," says Ilva Baldwin, who has been supervisor of the section for seven years.

When a request for typing service comes in, Dorothy Holloman, assignment clerk, logs it and checks the job requirements,

UNM to Offer Reactor Course Fall Semester

Reactor Principles and Engineering, Engr. 213, is to be offered this fall, the University of New Mexico announces.

Prerequisite for the course is Engr. 211L or equivalent and a prerequisite or co-requisite is Math 147 or equivalent. Engr. 211L and 212L will not be offered but Physics 110 and 111L will be substituted.

Math 147 and Physics 110 will be offered during the summer session. For anyone desiring to take Engineering 213 this fall, it would be advisable to satisfy the prerequisite requirements this summer, the announcement said.

Sandians may obtain additional information from W. H. Bailey of Staff Training and Education Division 3131, ext. 45157.

Credit Course Math 147 to Be Taught at Sandia Laboratory

Sandia Corporation employees studying under the Educational Aids Program may enroll at the University of New Mexico on June 18 for a credit course. Mathematics 147, which will be taught at Sandia Laboratory.

The class at Sandia will start July 11 for employees under the Technical Development Program, however a limited number of other employee-students may also enroll. The course will probably be taught during the morning.

Math 147 will also be offered on campus starting June 20 in the regular summer session.

Additional information may be obtained from W. H. Bailey (3131-2), ext. 45157.

Employees Buy Travelers Cheques At Sandia's Financial Divisions

Sandia Corporation employees preparing to go on vacation are reminded that Travelers Cheques for their personal use may be purchased from the tellers of the Financial Divisions 6021 and 8213.

Travelers Cheques, readily negotiable anywhere, provide a convenient and safe way to carry vacation funds.

The service charge to employees is one-third of one per cent of the face value of the Cheques: 33 cents for \$100. Cheques are available in denominations of \$20, \$50 and \$100.

All Sandia Corporation checks

issued to employees may be exchanged for Travelers Cheques. Personal checks and checks drawn payable to employees (other than Sandia Corporation checks) may also be exchanged for Travelers Cheques up to an amount of \$100. Amounts in excess of \$100 will be handled at the discretion of the Financial organizations.

To arrange a convenient time to purchase Travelers Cheques, employees should call the tellers in advance: ext. 32147 at Sandia Laboratory and ext. 2283 at Livermore Laboratory.

Supervisory Appointment

ANTHONY T. NORWICH to supervisor of Electronics and Machine Shop Inspection Section 8223-4, Plant Services Department.



Tony has been with Livermore Laboratory since October 1958 working as a model maker in Machine Shop Section 8223-1.

Before joining Sandia he worked seven years as a tool maker for the University of California at Los Alamos. He began his career in the field as an apprentice machinist for United States Steel in 1936. He also worked in an experimental tool room for Dodge-Chrysler, and as a tool and mold maker with Gates Rubber Co.

During World War II he served with the Army Air Corps in the Bomb Sight Division, stationed at Lowry Field in Denver, Colo.

Tony is a graduate of the Midwest School of Refrigeration in Denver, and is a member of the American Society of Tool Engineers and the American Society for Metals.

Citizens Radio Group To Organize, First Meeting Set June 15

The Albuquerque Citizens Radio Association, a non-profit organization to assist citizens' radio band operators in technical problems and interpretation of FCC rulings, will hold its first meeting June 15.

Officers will be elected at this general meeting to be held in the Albuquerque National Bank courtesy room, Washington and Central NE.

The organization is open to all persons interested in citizens' radio activities.

FCC rulings have set aside certain portions of the frequency spectrum for Citizens' Radio Service with minimums of operator and station requirements necessary for operation.

For further information contact R. W. Russell (1611-4), AL 5-1791.

Softball Standings

At End of First Round of Play

American League		National League	
Won	Lost	Won	Lost
4100, 4300	6	2500, 5100	4
1200-11	4	4400	2
5200, 5300	4	2700, 5500	3
1600	3	1200-1	2
2400	3	1300, 1400, 6000	2
3400	3	3100, 4200, 4500, AEC	1
2600, 3200	0		6



THIS EXTRA-LONG CARRIAGE typewriter which Maude Vie is using can handle over-size material such as charts or tabular work. Mij McGoorty, standing, discusses a job assignment with Maude.

and gives it to the editorial assistant, Rosemary Teasdale, for editing. After Rosemary has checked it, she returns it to Dorothy who assigns it to one of the typists and follows through to completion.

All work is proofread, with two girls assigned each day to this requirement. A cubicle is provided for proofreaders to lessen the noise of typewriters.

The Typing Service Room is equipped with a drafting table and a light table so that the typists may work conveniently with large charts and tabular material. For typing jobs that require equations and symbols not found on standard typewriters, there is a typewriter with modified keyboard available. Also, an extra-long-carriage typewriter can handle material which is oversize.

The work load varies from 30 to 60 jobs a day, from one page to 200 pages long, and the typists use many short cuts and the most efficient methods for accomplishing their work.

There are various ways of speeding up work completion: Ditto masters which are easily corrected or spliced, with a minimum of time for reproduction, instead of bond and tissues; opaque correction fluid for making corrections on rough drafts, instead of erasing; one bond and Verifax copies of memos and reports with equations where special type or artype on carbon copies require much time; duplimat for multiple copies wherever feasible—for instance, a letter with 25 copies would require three typings, whereas duplimat gives a clean, clear copy when reproduced and

can be run on letterheads where necessary.

One of the biggest headaches is trying to decipher poor handwriting. "If persons submitting handwritten work would write legibly, this would save much time in editing and typing," Ilva pointed out.

There are 16 girls in the section, and they range in age from young brides to grandmothers. Each one has a dictionary, up-to-date Correspondence Guide and the book 20,000 Words as essential tools on her desk.



CHECKING A one page graph typing request which has just come in are (l to r) Ilva Baldwin, section supervisor, Rosemary Teasdale, editorial assistant, and Dorothy Holloman, assignment clerk.



DISMANTLING OPERATION of used equipment to recover usable parts is performed by personnel of Processing Section 4621-2. In the background is a section of the extensive catalogued and stored supply of usable electronic parts maintained by the organization. Browsing for items encouraged.



STOCK ROOM in Bldg. 870 contains hundreds of items awaiting use by Sandia organizations, or are at the disposal of AEC approved government agencies. Here Don Hoffheins (left) and Norman Smith check material off availability list before it is delivered.

New Quarters Make Sandia's Reclamation More Effective

As pictures on this page show, recently completed Bldg. 870 is proving to be an efficient and pleasant workshop for reclamation activities of Department 4620. "Everything in the building was planned to facilitate top capacity operation," says W. O. Smith, supervisor of Processing Salvage Division 4621. "We worked closely with Plant Engineering during every phase of design and construction of the building."

The new building houses Processing Salvage Division and Records and Disposal Division.

A large office area is provided for administrative sales and service work and the rest of the building is devoted to the reclamation shops and storage.

Large amounts of material are moved through the building. Forklifts and trucks shuttle between the storage yards, Bldg. 870 and the salvage yard located outside the Tech Area south of Bldg. 880. There surplus equipment is sold during the noonhour to employees or the public.

"Every possible effort is made to place the serviceable equipment back in use instead of sending it to the salvage yard," Mr. Smith says.

Seek Full Value

Purpose of the reclamation activity is to see that Sandia receives maximum return from its salvaged property. The organization returns to use in the Corporation some \$750,000 in material annually.

In all reclamation activities the Corporation follows regulations prescribed by the AEC.

As material is no longer needed in any Sandia organization, it is reported to Reclamation and delivery is arranged. When it arrives at Bldg. 870 it is temporarily stored in either a large outside storage yard or inside the building to await processing.

As material is moved inside the building, it is inspected by personnel of the Receiving and Inspection Section under C. D. O'Connor. A record is made of all the items and determination is made at this time if the material will go into stock or, if no longer usable, to salvage.

Items that are placed in the stock yards are recorded and lists are circulated within the Corporation for a period of time. All departments receive these lists. Items can be requisitioned from stock by preparing a Material Requisition form and sending it to 4622 or 4621 for processing.

After a period of time, if the items have not been reapplied within Sandia Corporation, they are listed for circularization outside the Corporation to other AEC approved agencies.

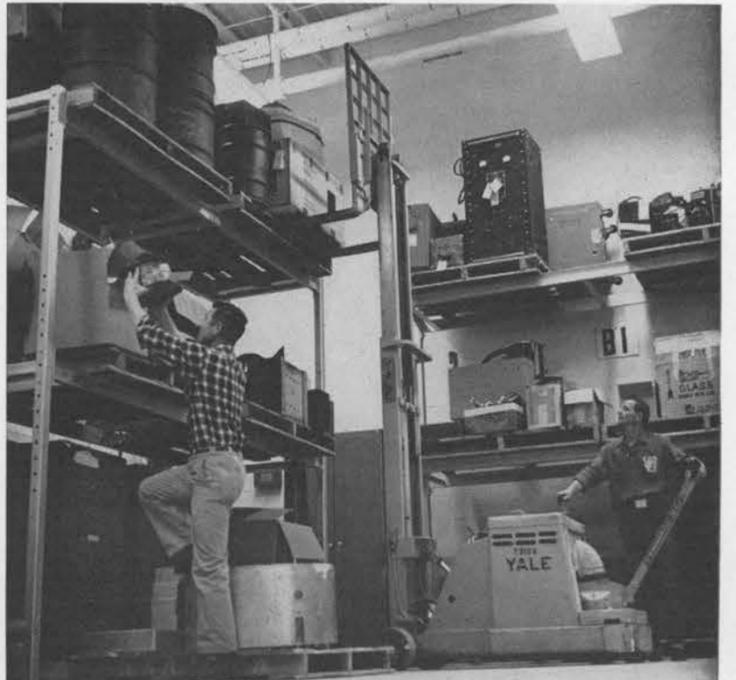
Electronic Gear Dismantled

Electronic gear no longer usable as a complete unit is dismantled to remove usable parts to be catalogued and stored in one corner of the building. Varying sizes and shapes of transistors, di-

odes, batteries, toggle switches, motor driven relays and other electronic items are kept on hand for a short period of time. "Browsing" is encouraged when Sandians are looking for specific items.

All classified material is completely dismantled prior to bulk shipments to designated recipients. Storage yard for classified material is completely enclosed with a high barbed wire security wall. The material is completely covered with tarpaulins when in the storage area.

"We have some 56 employees working in the building," Mr. Smith says, "and, needless to say, we are real proud of our new building. All of our reclamation functions are centralized and this gives us a better organization. We like to think that our service to other organizations within Sandia has expanded and our material processing has speeded up."



MATERIAL STORAGE in Bldg. 870 is achieved with maximum efficiency utilizing these space saving racks. Racks are movable and allow flexible space arrangement. At left Flaviano Saavedra places material on the rack while Willard Randall uses fork lift to remove items from top shelf. Material is awaiting processing.



CENTER OF RECLAMATION activities at Sandia Laboratory is Bldg. 870, shown in the background above. In foreground are W. O. Smith, supervisor of Processing Salvage Division 4621, left, and Robert Findlay, Receiving and Reclamation Dept. 4620 manager.



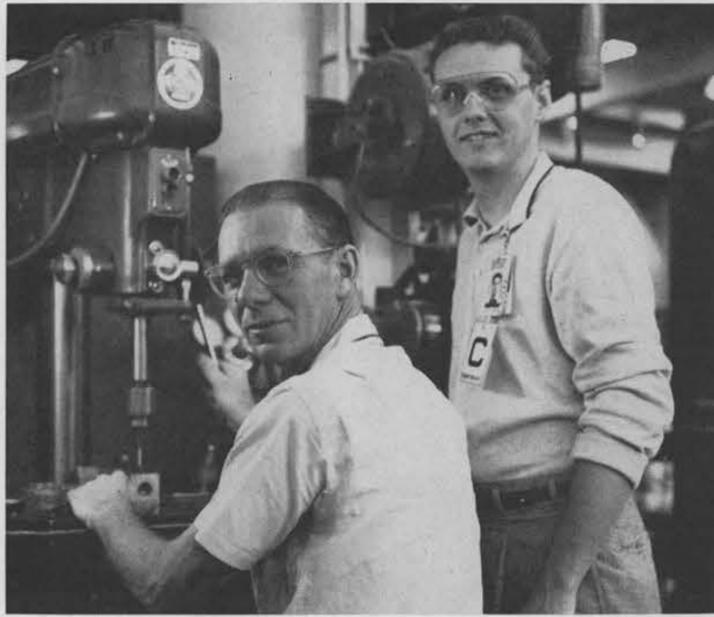
CLASSIFIED STORAGE YARD contains material waiting for dismantling in the reclamation shops. In the foreground, Joe Garcia fastens tarpaulin

covering the material while in the background Juan Tafoya, Bill Putnam and Lewis Butler bring new classified material on a fork lift to the yard.

Father-Son Combinations Frequent At Sandia Lab



SANTIAGO OTERO (4212-2) started his family's chain reaction in working at Sandia nine years ago. His three sons are (l to r) **Jimmie (4514-1)**, who has been here eight and one-half years, **Odellio (4231)**, three years, and **Conrado (3466-1)**, one year.



A RELATIVE NEWCOMER to Sandia is **Ron Cheek (right)**, a draftsman in 4413-1, who has been here since last August. His father, **Gordon**, works in Project Assembly 4221-2, and has been at Sandia three years. They came to Albuquerque from Wichita, Kan.

Duties of a new father are universal. He walks the floor with baby, helps prepare formula, "bubbles" the child, and is generally tired for at least three months.

When the child takes his first steps, he is already becoming a companion to his father. And as he grows older, the father becomes an "answer" man to millions of "Why's?"

During the adolescent years, fishing trips, boy scouts, helping with homework, counseling, playing softball or other sports, and numerous other activities occupy the father's time. When the boy is in his teens, dad learns to do without the family car, and graciously meets all the latest girl friends of his offspring.

As college age approaches, the father talks with his son, helping him to choose a school, a profession, and undertakes financial responsibility which goes with a college degree. But as his son walks across the platform and is handed his diploma, the satisfaction and pride on dad's face is worth all the effort.

On to a first job, marriage, and soon dad is a grandfather. And in all this growing up process, dad has helped him mold his character, his ambitions and his future.

Not all fathers have the satisfaction of working in the same company as their sons, but this is the case in a number of instances at Sandia.

As Father's Day, June 19, approaches, the *Lab News* takes the opportunity to point up three father-son combinations which are symbolic of the many such combinations here.

Sphere of Science Will Be Open to Visitors June 16-17

Employees and their families will have an opportunity to visit Sandia Corporation's Sphere of Science exhibit during noon hours on Thursday and Friday, June 16-17, and from 1 to 5 p.m. on Saturday, June 18.

All of the scientific displays, which were prepared by Community Relations Section 3431-2, will be operating.

Included among the new exhibits are a Foucault Pendulum which shows the rotation of the earth, a scale model of the wind tunnel with audio description, six dioramas of great moments in science and engineering, an aerodynamics audience participation exhibit, another aerodynamics display, and a high speed photography movie showing tests of the Mercury Capsule.

The dome, painted turquoise blue, is located just north of the Motor Pool near the water tower. All employees are invited to view the exhibits.

Welcome Newcomers

May 9-June 3

Albuquerque	
Eleanor D. Black	5243
Donald Radovich	3463
Patsy R. Rose	4333
Colorado	
Dean L. Milburn, Denver	3451
Illinois	
Robert Kampwirth, Chicago	5223
Indiana	
Robert H. Altherr, Kokomo	2561
Robert L. Lucas, Indianapolis	4412
Ronald E. Rutherford, Indianapolis	4412
William J. Wagoner, Munster	3462
Missouri	
Charles E. McCarthy, Kansas City	1431
Temporary Summer Hires (Albuquerque unless otherwise indicated)	
*Priscilla B. Archibeque	3461
David Bliss	3464
John F. Brady	5251
Donna G. Burke	3126-6
Agnes A. Crosthwaite,	
Mosquero, N. M.	5151
William B. Dickinson	3464
Michael L. Doria, Cleveland, Ohio	2750
John D. Dugger	3464
Terrence J. Fagan, Cleveland, Ohio	2451
Kathleen M. Gilbert	3463
A. June Hendley	3364
*Henry G. Hermes, Jr.	5126
*Terry D. Herther, Fargo, N. D.	5126
Janet L. Jenkins	3463
Charles M. Justice, Jr.	4518
Jay C. Masters	1424
*Judith L. Miller	3126-6
Robert M. Morgan	1442
*D. Cordell Mounkes	4413
*Mary E. Neun	3466
*Nancy M. Nolan	3126-5
*Richard S. Shoberg, Jr.	4518
*Ralph R. Spengeman	4410
*John F. Taylor	1340
George R. Wilde, Ames, Iowa	2451
* Denotes Rehired	

Coronado Club Annual Meeting Monday June 13

Annual meeting of the Coronado Club will be held Monday, June 13, at 7 p.m. Members will elect eight directors and vote on a by-laws change concerning election of directors, according to A. F. Cone (5510), president of the board.

Another June event is the Club's 10th anniversary party which will be held tomorrow night. No admission charge will be made for members. Guest fee is \$1.25. Swimming pools will be open from 6 to 10 p.m. and dancing will start at 9 to the music of Bud Fischer's orchestra.

On June 17 a Teen Dance will be held from 8 to 11 p.m. Parents should pick up tickets for their children at the Club office.

Members are reminded that following social hours on Friday night, a buffet dinner is served from 6 to 7:30 p.m. Price of the buffet is \$1.60 per person. Also, persons wishing to bring guests not eligible for Club membership to social hours no longer are required to pay a guest fee.



AN OCCASIONAL VISITOR in Bldg. 802 is **Jim Miller (right)**, section supervisor in 4623-1, who goes to see his son **David**, a technician in Electronic Component Division 1432. Jim has been at Sandia Lab almost 10 years and David started here in June 1952.

E. S. Roth to Present Graphic Science Talk In Colorado June 15-17

E. S. Roth (2562) will present a talk, "A New Industrial Graphic Science—Positional Tolerancing," and lead a panel discussion at a Summer Conference on Graphics in High School, Industry and College at the University of Colorado June 15-17.

Participating in the panel discussion will be F. F. Eiffert (4410), Prof. R. G. Huzarski of the Civil Engineering Department, UNM, and Prof. Fred L. Spalding, University of Illinois General Engineering Department.

D. R. Kuehl Attends 'Complex Vibration Practice' Course

Donald R. Kuehl (1612) recently attended a 10-day course on "Complex Vibration Practice" at MB Electronics, a division of Textron Electronics, Inc., in New Haven, Conn.

More than 150 engineers from missile, aircraft and electronics firms throughout the country have attended the two-week course which is designed to fill the need for information in the highly specialized and rapidly developing field of vibration testing.



FOUR SANDIANS pictured above are explaining material from the Sandia exhibit at the Second Western Electric Conference on Quality Control to F. Stonehill, Assistant Superintendent, Development Engineering, WE Allentown Works. They are (l to r) **E. S. Roth (2562)**, **J. A. Larson (2561)**, **Stonehill**, **L. E. Snodgrass (2561)** and **E. L. Devor (2561)**. The conference was last month.

Four Sandians Present Tech Papers At WE Quality Control Conference

A total of 140 Quality Control personnel from all Western Electric plants and Sandia were attracted to the Second Western Electric Conference on Quality Control at Allentown, Pa., recently.

The conference theme was "Reliability, In-Process Control, and Cost Reduction." Four Sandia representatives who presented papers were **J. A. Larson**, **E. L. Devor** and

L. E. Snodgrass (all 2561), and **E. S. Roth** (2562).

Sandia's exhibit included Confidence Limit Computers and copies of a report on the computer development and use furnished by the Reliability Department 1440; an electronic data display contributed by the Data Center Planning Division 3453, and product exhibits planned by the Electromechanical and Pyrotechnic Division 2541.

Livermore Laboratory Co-Workers Help Widow of Employee

Co-workers of **Money McCoy**, Livermore Laboratory employee who died last month, have reported that Sandia employees donated more than \$400 to his widow and four children.

Mr. McCoy, an employee for only two months at the time of his death, had not been on the rolls long enough to be eligible for group insurance or supplementary life insurance benefits.

Part of the money collected was used to purchase three months of health care insurance for Mr. McCoy's widow, who has been hospitalized since his death. Under the provisions of the Health Care Plan, the widowed spouse and children of an employee may continue health care insurance for a maximum of three months at a monthly premium of \$10.16.

The collection campaign was organized by **Loren Converse**, who worked with Mr. McCoy in the Instrument Services Section (8121-3).



THE GUARDS, the badges and the fences—all do a good job. But ultimately, Security is up to you. It is part of all employees' jobs.

Ten Years



Dean E. Irvin
4112
June 12, 1950



William Schmedding
8223
June 13, 1950



Duane J. Hillard
4172
June 14, 1950



Robert E. McCallum
2752
June 19, 1950



Charlie Chavez
2642
June 22, 1950

Five Year Pins

June 11-24

Lynn M. Barker 1283, Donald E. Cole 5535, Esther Deffenbaugh 4152, Abram C. Grose 4221, Walter E. Kappus 1423, Gordon W. McClure 5150, Nemesio Martinez 4575, Frank J. Tufts 4542.

Marjorie M. Benson 3421, W. Daril Gutscher 5221, Frank D. Baca 2642, Roy M. Tidwell 5231, Kenneth H. Cordes 5144, Roman S. Heuer 1217, G. M. Minshall 2252, Richard T. Othmer 1282.

Edward S. Phinney 5331, George Volda 1627, Philip T. Boling 1311, Eldon B. Frame 5521, Jay D. Gilson 8153, Elden L. Prawitz 2643, George W. Elliott 3151.

Larry Smith Wins Given Memorial Golf Tournament for Sandia Players

A playoff among three Sandia golfers determined the winner of the first annual Fred J. Given memorial golf tournament held at UNM last week.

Larry Smith (5111) won the extra hole duel and became recognized champion of the Sandia Employees Golf Association for 1960. He received a trophy and his name will be engraved on the permanent trophy in the Bldg. 802 display case.

Tied with 77's at the end of 18 holes were Larry, Dick Kidd (2533) and Jim Leonard (1247). Larry shot a par on the 19th hole, and the other two both bogied the hole.

Low net winner in the Championship flight was John Puhara (4411). Best four ball team was D. Klein (AEC), Jack Canute (5251), Jim Arnold (1612) and Joe Hickey (4516).

First flight winners were Dan Freshman (2562), low gross; Frank Zack (3361), low net; and George Horne, Sr. (4153), G. Dugger

(AEC), Ken Flynn (1264) and Zack, best four ball team.

Second flight winners were V. C. McIntyre (AEC), low gross; Fred Sweet (1621), low net; and McIntyre, Sweet, Oscar Schroll (2555) and M. W. Hancock (3465), best four ball team.

Third flight winners were Lou Larsen (1624), low gross; Glenn Guist (4412), low net; and Bill Austin (2641), Ralph McClure (2442), Bob Thomas (2555) and Bill Sodja (5332), best four ball team.

Fourth flight winners were Al Schnedler (5332), low gross; Larry Tabor (4412), low net; and Max Newsom (1247), Bruce Wickesberg (2441), Tabor and Jack Cyrus (1232), best four ball team.

Trophies were awarded to low gross winners in each flight, while low net winners, runners-up and best ball teams received golf balls. A total of 80 employees played in the tournament coordinated by Jim Arnold (1612).



WINNER OF THE first annual Frederick J. Given Memorial Golf Tournament was Larry Smith (5111). Above, Mrs. Given presents the trophy engraved with her husband's name to him.

June 13-24 Movie Schedule Announced

Sandia Laboratory's noon hour movie schedule for the coming two weeks is:

June 13, 14, 15

"The Perfect Furlough," with Tony Curtis, Janet Leigh (color)

June 16, 17

"All I Desire" with Barbara Stanwyck, Richard Carlson (B&W)

June 20, 21, 22

"Thunder Bay" with James Stewart, Joanne Dru, Gilbert Roland (color)

June 23, 24

"Land of Fury" with Jack Hawkins, Glynis John (color)

All movies begin at 12:10 in the Sandia Base Little Theater which is located south of the military cafeteria on Main St. Showings last about 35 minutes.



JOHN BARNHOUSE (8223-4) receives golf trophy from Moe Granucci, local golf tournament sponsor. John shot the winning low gross score of 76 in the recent tournament at Pleasant Hill golf course in San Jose.

Despite Changes, Promotions, Gerry Hickey Has One Boss Ten Years

"Gerry" Hickey has worked for the same boss going on 10 years and furthermore she hopes to continue for another 10!

When she began her employment with Sandia Corporation in April 1951 she was assigned as T. F. Marker's secretary. Despite organization changes and promotions she is still with Mr. Marker, who is now manager of Automated Data Systems Development Department.

Gerry grew up in Albuquerque and attended Loretto Academy in Santa Fe and Western School for Private Secretaries.

"This is the only job I've had where I didn't dread coming to

work," she said. "I can always count on a cheery good morning."

Thinking back over the years Gerry recalled, "On one of my first days with Sandia, Mr. Marker asked me to send a letter to 'CG AFSWC.' I looked in the telephone book for a Mr. Afswc without luck. He explained to me that he meant the Commanding General of Armed Forces Special Weapons Command. I've laughed many times since then about this mistake."

Aside from the usual attributes of good secretaries, Mr. Marker feels that Gerry has one qualifications that is outstanding: she doesn't lose documents."

SHOPPING CENTER

SHOPPING CENTER

SHOPPING CENTER

SHOPPING CENTER

SHOPPING CENTER

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday.

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.

FOR SALE

HBR-14 HAM band receiver for 20-15-10 meters, dual conversion xtal controlled second converter, \$95 or best offer. Bauer, AL 5-7774.

AUTOMATIC WASHER, 1957 Kenmore, \$45. Sisler, AX 9-0963.

'56 CUSHMAN Eagle, has speedometer. Shaw, 600 Val Verde SE, AL 5-1576.

DINETTE SET, 9 piece, formica top, white with gold and black trim, less than six months old, \$70. Willett, AM 8-9357.

34 ACRES in Manzanos, pines, oaks, junipers, crushed rock road through property, electricity, \$75 per acre cash. McKinley, AM 8-4779.

RUG 10' x 12' gray tweed with pad; blond cocktail and step tables; maple double bed complete; large ice chest. Young, AL 6-1387.

ROBERSON RESALE by owner, 3 bdr., den, double garage, 1 1/2 bath, no qualifying, desirable NE location, \$17,500. Norton, AX 9-3474.

SCHWINN TRAVELER 26" boy's bicycle, \$25. Baldwin, AX 8-2508.

ROTO BROIL 400 Capri, used little, w/spit and cord, \$25 or best offer. Smith, ext. 54176 after 5 p.m.

ELECTRIC RANGE, 40", four elements, timer, large oven, storage space, '56 Admiral model, \$75. Watt, AX 8-0595.

BABY CARRIAGE, 11" rubber wheels, padded frame, \$15; hand mower, 18" cut, 10" rubber wheels, needle bearings, \$15. Higgins, AX 9-2285.

'56 FORD 4-dr., standard transmission, extra clean, R&H, \$895. Bortniak, AL 6-3177.

'53 PONTIAC 2-dr. deluxe; automatic washer, new motor guarantee, \$50; electric baby bottle sterilizer, bottles, \$5. Brady, AX 9-6037.

PIANO, Mannborg spinet, mahogany, \$300. Willson, AX 9-0278.

19" TV, Westinghouse console, \$50; GE Filterflo washer, \$50. Wiesch, AL 6-7236 before noon or after 5:30 p.m.

'56 BUICK Roadmaster 4-dr., PS, PB, R&H, \$1350. Dick, AX 9-1201.

20" TV, \$25; desk and chair, \$10; end tables, \$5; vacuum cleaner, \$3; new 17' folding kayak, \$95. Pederson, AX 9-3624.

3 IN. OSCILLOSCOPE-type 164-E Dumont Labs, \$20; Heathkit VTVM-Model V-7A, \$20; guitar, "Sear's best flat top," \$20. Sharp, AX 8-2702 after 5 p.m.

ELECTRIC RANGE, Frigidaire 40", deep well, two storage drawers, \$50. Herford, AX 8-1052.

YOUTH BED, lined oak with decorations, complete, \$25; Jenny Lind spool bed, walnut finish, complete with spring and mattress, \$25. Campbell, AL 6-1015.

NEXT

DEADLINE

FOR SHOPPING CENTER ADS
Friday Noon, June 17

AMATEUR EQUIPMENT, a Knigh VFO, \$20; 100 watt handbook modulator in rack mounting, \$25. Drake, AX 9-0743.

'48 CHEVROLET tudor, good engine, \$125. Thompson, AL 6-0044.

ARABIAN COLT, purebred yearling, \$1250; registered Western half Arabian gelding, \$600; half Arabian filly, \$350. Redinger, ext. 31159.

MODERN ADOBE 7 room home with one acre and big shed, in Bosque farm on highway, \$3,000 down or best offer. Skelley, Rt. 1, Box 618, ext. 26134.

FISH TANK, 15 gal. complete with cover, lights, pump, filters, thermostat, etc., \$20. De Lollis, AX 9-5384.

3 BDR. HOME, 1 1/4 bath, Roberson, walls, landscaped, sprinklers, AC, disposal, \$15,800 total, \$2,900 down, 4 1/2% GI, \$86 month. Frisby, AX 9-0045, 11012 Elvin NE.

'57 FORD Ranchero, Ford-o-matic, R&H; 11 1/2 gal. tank compressor paint sprayer; ratchet solid die set 1 1/4, 1 1/2, 2" pipe dies. Miller, 1248 Stanford Dr. NE, AL 6-3895.

17" TV, \$50; three maternity dresses, size 12, \$8; two tricycles, \$9 and \$7; four basket chairs, \$3 each. McMaster, AM 8-8062.

'48 CHEVROLET 4 speed, 3/4 ton pickup, \$250. Bill Dunn, Ph. Temple 2-4245, Moriarity, N.M., or ext. 24239.

MODEL A 1931 Victorian coupe, has new motor, good tires and spare parts. Weber, AX 9-0494.

MOTOR SCOOTER, 1954 Allstate. Best offer or will take baby chest in trade. De Zeeuw, AL 6-0205.

'53 OLDSMOBILE 98, R&H, will sell under list price. Nancy Ellis, 1706 Ross Pl. SE, AL 5-5086.

CHUCK BOX for jeep, wagon or universal, 3/8" waterproofed plywood, 8 gal. copper water tank, dustproof, opens as table, \$15. Linn, BU 2-3986.

HOTPOINT REFRIGERATOR, 8 cu. ft.; dinette set, 5 piece; two day beds; occasional chair. Libby, 1714 Hermosa NE, AM 8-2025.

ROTARY MOWER, 24", 3 hp, 4 cycle, Clinton engine, E-Z height adj., two mas. old, sell for \$45. De Vargas, AX 9-0477.

'59 ALLSTATE motorcycle, \$250. Costello, 1828 Blume NE, AX 9-0563.

TRAILER, 2 wheel, Allstate, torsion bar suspension, lights, spare tire. Kavet, 1836 Blume NE, AX 9-1793.

'54 PONTIAC station wagon, one owner, R&H, retail value \$595, will sell for \$500. Mashburn, AX 9-9102.

3 BDR. home, 19 months old, payments \$62 monthly, 1 mile from Sandia Base, furnished or unfurnished. Dupre, 501 Torrance SE, AL 5-2904.

LUGGAGE TRAILER, one wheel, steel body with plywood and canvas covers, two Universal hitches, \$75. Whitford, AX 9-4271 after 5 p.m.

'59 ALLSTATE Moped motorcycle, 2 speed, 100 mpg, windshield, tools, manual, \$150. Ewing, AX 9-8249.

HAND LAWN mower; evaporative cooler; coffee table; living room suite. Heineman, AL 6-6387 after 6 p.m.

'58 PONTIAC 4-dr. sedan Chieftan, power brakes, power steering, 20,300 actual miles. Baldwin, 4229 Mackland NE.

SADDLE MARE, white, quarter horse, 3 years old, \$225; air conditioner, large window type, \$45; auto air conditioner, evaporative, 12 volt, \$25. Russell, AM 8-2523.

INEZ BUFF brick, 3 bdr., 1 1/2 bath, will sell at appraisal, \$1200 down FHA. Kantz, AX 9-5450.

BOSTON BULL terriers, AKC registered, 1 male, 1 female. Harper, AL 6-1657 after 5 p.m.

'58 VOLKSWAGEN sedan, blue gray, w/w tires, plastic seats, 19,000 miles, \$1395. Castle, AL 6-2239.

'54 FORD Crestline, 4-dr, V-8, FOM, R&H, 2-tone, 44,000 miles, one owner, \$625. Hosterman, 3037 33rd Pl., Sandia Base, ext. 39182 after 4:30 p.m.

LIVING ROOM set, 5 piece, \$35; round coffee table, \$15. Martinez, DI 4-0309.

PIPE ORGAN, Estey, small size, needs work, make offer. Erbe, AX 9-8013.

'59 ENGLISH FORD Prefect deluxe, white sidewalls, outside mirrors, heater, \$1,050 cash. Mitchell, ext. 35297.

OUTBOARD MOTOR, 12 hp Wizard, low hours, \$110; 45 rpm RCA record changer, \$5; English Ford trailer frame with wheels, tires, \$15. Moore, AX 9-2781.

\$1000 DOWN, 3 bdr. and den Roberson home, 18 months old, features birch paneling, fireplace, h/w floors. Ahr, AX 9-5144.

ELECTRIC STOVE, 40" GE, three years old. Osterby, AX 9-4606.

ELECTRIC FAN, 20", two speed, \$20; stereo 50 watt amplifier and pre-amps on one chassis, \$69.95; handmade leather man's traveling case, 28" x 18" x 12", \$30. Browning, AX 9-6384 after 5:30 p.m.

'57 OLDS 98, full power, AC, luxury car, will trade for cheaper car or motorcycle. Dave Henshaw, Men's Dorm, ext. 46149.

'59 FORD Ranch Wagon, stick shift with OD, six cylinders. Will sell or trade. Heimer, AX 9-4501.

BICYCLE, 26" boys, with three speed gear shift, \$25. Rychnovsky, AX 9-2850.

TUBELESS TIRES, two 650x16, six ply, \$20 each. Stuart, AX 9-9190.

POODLE PUPS, AKC registered, reasonable. Raisen, AL 6-0143 after 5 p.m.

GAS RANGE, 40", \$35. William Monday, CH 7-9279 after 5 p.m.

'54 CHEVROLET pickup, 4 speed, radio, heater, spotlight, new tires, \$650. Montoya, CH 2-3197.

WORK BENCH, picnic chest, lawn edger, lawn mower, heating stove, bird cage, saddle and bridle, small tools. De Ruyver, 2901 Christine NE.

LARGE 3 BDR, 1 1/4 bath, den, AC, w/w carpeting, sprinklers, close to schools, owner leaving town, good financing. Andrews, 2779 Tennessee NE.

'57 ALLSTATE Cruiser motor scooter, \$100. Dooley, AX 9-4875.

DERRINGER, .22 caliber, \$12; .22 caliber Liama automatic, \$40 or both for \$50. Sharp, AX 8-2702 after 5 p.m.

'56 OLDS 2-dr., hardtop, two-tone green, PB, PS, R&H, must sell, \$945. Garcia, CH 3-3473.

DORMEYER MIXER, \$4; folding safety gate, \$1; window car cooler, \$4. Breslin, AX 9-6625.

TWO SCENIC acres on old U.S. 66 in Tijeras canyon, adjacent to phone and electricity, title insurance, \$1900. Arnold, AX 8-1960.

'50 MERCURY, interior completely reupholstered, \$225. Archuleta, AL 5-6781.

AUTOMATIC WASHER, Frigidaire, \$30; two evaporative coolers, 2-rm. size, \$30 and \$20; rollaway bed, innerspring, \$15; 40" steel mast, telescopes to 8', \$7. Merritt, AX 9-6630.

'56 CHEVROLET 4-dr. Bel-Aire V-8, powerbrake, R&H, w/w tires. Lochtefeld, DI 4-0136.

3 BDR MOSSMAN with landscaping, sprinklers, walls front and back, hardwood floors, fireplace, airconditioned, \$13,750, \$800 down. Clark, 1212 Childers, AX 9-1129.

CAR COOLER 6 volt, \$20; 20" fan, \$17; 1/2 hp motor, \$14; round oak pedestal coffee table, \$15. Muehlenweg, 1312 Espanola NE, AM 8-0316.

EVAPORATIVE COOLER window louver 4000 cfm, \$25; Coleman gas floor furnace, 35,000 BTU, thermostat, \$25. Quelle, AL 6-2524.

RIO GRANDE BLVD., 2.8 acres in orchard and alfalfa, on main ditch, select building site. Galbreath, 3730 Manchester NW, DI 4-4306.

'58 DODGE Custom Royal 4-dr. sedan, air cond., all power, make offer. Kaspar, AL 5-7880.

ROBERSON HOME, 3 bdr., 2 bath, double garage, family room, eight months old; Schwinn 26" bike, \$20; motorbike, \$50. Roth, 3505 Pitt NE, AX 8-2175.

CLUB HOUSE, 7 ft. high, pitched roof, ideal for children, \$15. Weber, ext. 21293.

3 BDR MANKIN home, six months old, central heating, walled backyard, \$1100 down, no qualifying. Hawkins, 304 Garieta NE, AX 8-1755.

KENMORE ELECTRIC stove, \$30. Benson, 720 Kentucky SE, AM 8-5957.

HOUSE 3 BDR, large den, FHA, low downpayment, near Bandler and St. Charles schools and Nab Hill shopping. Kodel, 2904 San Rafael SE, AL 6-0096.

YOUTH BED, maple, complete, \$25. Kohut, 3520 Piermont NE, AX 9-9092.

HEATH 20W AMP, \$25; tape recorder, \$25; motorcycle Triumph 650 cc, \$225; piano, Richmond, modern upright, \$250. Wilkinson, 3804 Hilton NE, DI 4-9610.

ALLSTATE SCOOTER, used 8 months. \$185; Kenmore automatic washer, \$50. Wade, AX 9-2050.

HIDE-A-BED sofa, pink tufted nylon, opens to full size bed with innerspring mattress, \$75. Gauerke, AX 9-4746.

FRIGIDAIRE, automatic washer, reconditioned, \$60. Huebner, AL 6-0978.

ICE SKATES, girls, size 3; car cooler; reducing couch. Reinertsen, AL 5-1954.

'57 CHEVROLET, 6 cyl. sedan, R&H, std. trans., \$795. See at 732 Claudine NE after 6 p.m. Chavez, ext. 33160.

2 BDR and den, attached garage, corner lot, walled, sprinklers, lots of trees, near shopping and schools, \$10,500. Quigley, AL 6-6622.

BICYCLE, girl's English racer, 3-speed, \$25. Woodley, ext. 46187.

'57 MERCURY Voyager station wagon, red & white, 4-dr., 9-pass., all power facilities, air conditioned, \$1945 or trade down. Chandler, AX 8-1705.

'53 PLYMOUTH, 4-door, \$295. Guerin, AL 5-7261.

'53 CHEVROLET Stationwagon, 4-door, R&H, automatic transmission, \$450. Gregory, AX 9-2461.

WANTED

'49 or '50 model automobile in good condition for a reasonable price. Netz, AX 9-7036.

PERFECT for Father's Day! Free kittens. Tatum, CH 2-9021.

LARGE TRICYCLE in good condition. Lewis, 9716 Mesa Arriba NE, AX 8-0295.

USED BABY BED in good condition, play pen. Loucks, AX 8-0589.

KODAK 828 Bantam camera. Becker, AX 9-2539 after 5 p.m.

RADIO for '57 Plymouth. Coleman, AL 5-7480.

HOMES for kittens, tigers and long hairs. Beattie, 2923 Adams NE.

GI RUBBER raft, two-man. Hungate, AX 9-8302 evenings Monday thru Thursday.

FOR RENT

1 BDR APT, unfurnished, built-ins, carpet, clean, near Sandia. Benson, AL 5-6004.

2 BDR APT, near base, off-street parking, storage space, water and garbage paid, \$70/month. Harrison, AX 9-7325.

2 BDR APT, stove, air conditioner, washer rough in, water and garbage paid, apply at rear Apt. C, 528 Cardenas SE. Tillman.

GIRL TO SHARE home and expenses with working lady, University area. Andrews, AL 5-3668 after 5.

LOST AND FOUND

LOST—Tan glass case, sunglasses in brown leather case. Lost and Found, Ext. 26149.

FOUND—Yellow knit glove, lady's Bulova watch, operating manual for Autograf X-Y Recorder, gold tie clasp, plastic template. Lost and Found, Ext. 26149.

FOR SALE AT LIVERMORE

MOTORCYCLE, '59 Triumph (TR6), Trophy street machine, never raced, \$700 or best offer. Scott, HI 7-4757.

'54 JAGUAR, modified roadster, one owner, new top, low mileage, \$1050. Wishart, YE 5-3757.

'50 MERCURY, 6-passenger club coupe, one owner, R&H, \$150. Crocker, HI 7-4074.

'57 DODGE, V-8 Coronet, 2-door club sedan, automatic transmission, padded dash, WW tires, low mileage, \$1,395. Charbonneau, HI 7-1520.

'58 FORD, Ranchero, 6-cyl., standard shift, WW tires, \$1,525; '60 BSA motorcycle, 250 cc, brand new, \$525. Forest, HI 7-1044.

TRAILER, all metal, w/canopy and cover, 2 swivel wheels, \$60. Aas, HI 7-5858.

VACUUM CLEANER, GE, swivel-top, canister-type, all attachments, light green, 5 months old, \$25. Hunter, JE 8-9871.

ELECTRIC RANGE, Tappan 30", extra oven, glass window in door. Drummond, HI 7-5856.

RUGS, 12' x 6'9", green, 100% wool, \$18; 12' x 4', green, 100% wool, \$5; 9' x 12' linoleum, \$5; 8' x 8' linoleum, \$9; 9' x 12' brown fiber, \$8. Jenkins, HI 7-5726.

FREE KITTENS, two long-haired at present, more coming. Foster, Ext. 2423 or VE 7-4989 (Danville).

TRAIN SET, American Flyer, steam engine 4-6-2 with whistle, smoke, choo-choo, mounted on folding 5' x 6' plywood board, transformer, extras, \$22. Field, HI 7-0103.

Ultrasonic Welding Study Points to New Directions in Joining Dissimilar Metals



ULTRASONIC WELDING SAMPLES are displayed by L. E. Null (1621-2). At left he is holding a sample of thin aluminum foil welded to two pieces of glass. At right a thin wire weldment supports a heavy bolt. In the foreground are samples of dissimilar metals and materials that have been joined by ultrasonic process.



NEW FIELD TEST TRAILER at Livermore Laboratory offers all the comforts of home plus the latest in instrumentation equipment. The 40-foot trailer is equipped with air conditioning, refrigerators, telephones, electric lights, work bench, power tools, radio receivers, and microwave telemetry instrumentation. Checking equipment for use by the Nuclear Support Section (8123-2) are (front to rear) Stewart Ingham, Jim Blanchard, Dick Read, (all of 8123-2).

An application study of uses of ultrasonic welding by Metallurgy Section II 1621-2 has revealed some new directions in joining dissimilar metals for consideration by design and development engineers.

A new machine, Sonoweld 4000 Watt Ultrasonic Welder, recently installed in Bldg. 849, has proved particularly interesting to Sandia metallurgists. Two other smaller ultrasonic welding machines of 600 and 100 watt capacity are for close control in joining thin materials and fine wire.

Joining of some metals heretofore considered impossible by conventional welding methods is now a matter of a few minutes of planning and work. To illustrate the uniqueness of this process, aluminum can be welded to tungsten; molybdenum can be joined with nickel, aluminum, copper and stainless steel. There are limitations, however, such as thickness, and most applications require development effort.

Thin strips of aluminum can be joined with bars of stainless steel. Microscopic copper wires can be welded to gold, silver, nickel and a few other metals. Dissimilar materials may be joined with high structural integrity. Aluminum foil can be welded to glass. By ultrasonic welding, thin foil can be joined to heavy plate material. These examples are only a small indication of the variety in the existing and potential capabilities of the ultrasonic welding method.

The machine introduces a vibratory energy into the materials at the area to be joined which produces a solid state metallurgical bond. Very little heat is generated and this only in the area of the weld.

A steel "reed" is made to vibrate ultrasonically (inaudible to human ears) through the use of transducers at either end. Pulses of high frequency electrical energy power the transducers and produce the mechanical vibration which in turn is directed through the welding tip into the materials to be joined. The extreme vibration literally shakes up the mole-



LARGE ULTRASONIC WELDING machine is operated here by L. E. Null. He is joining thin bars of aluminum and tungsten. Directly above the welding point is encased the steel "reed" that creates the ultrasonic vibration. Very little heat is generated.

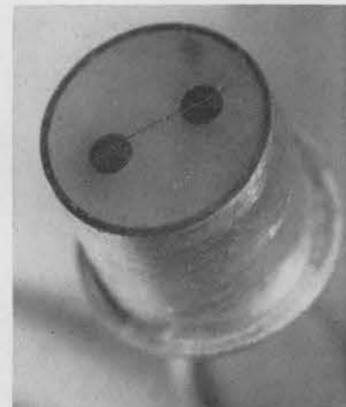
cular structure of the pieces and produces permanent realignment and metallurgical bonding.

"Purpose of the applications study of ultrasonic welding," Keith E. Mead, 1631-2 supervisor says, "is to provide Sandia design and development engineers with information on capabilities and limitations of the technique."

L. E. Null (1621-2) is conducting the applications study and is available for consultation about the process, as well as possible applications.

"This process is particularly effective in producing junctions that are difficult or impossible to achieve by more conventional joining methods," Mr. Null says, "or as a substitute for other techniques which might introduce undesirable side effects. In miniaturized components as well as large weldments where heat input and contamination are prime considerations," he says, "the ultrasonic

welding process seems particularly applicable and promises a high degree of reliability."



SAMPLE of ultrasonic welding above shows tiny .0008 inch nickel alloy bridgewire joined to Kovar posts .040 in diameter.

Livermore's Irv Ellicott Loves Horses; Horse Training, Teaching Riding Is Hobby

If you happened to visit Manhattan's crowded Times Square during the hectic war years you might have noticed Irving Ellicott (8114-4). He would have been riding a horse, naturally.

While not many people can claim the distinction of having ridden horseback through Times Square, it was a fairly routine event for Irv. That was because Irv served with the Headquarters Troop of the New York City Mounted Patrol Corps. He was one of a force of 40 to 50 auxiliary policemen who patrolled the midtown area.

Horse training and riding have been Irv's hobby, and on some occasions his livelihood, for the past 30 years. During the '30's, he operated a 22-horse riding academy in Westport, Conn., for several years. Today he is a Staff Assistant in Livermore Laboratory's drafting division. He began his career with Sandia

in Albuquerque five years ago, transferring to Livermore in March of this year.

The art of horsemanship began to fascinate Irv as a youth of 19 or 20. For about six years he studied under European riding masters in New York, then started teaching on his own.

Irv has since raised several horses for show purposes, garnering a basket of prizes over the years. In the 1958 New Mexico State Fair his prize horse, "Farsul," won a first place Blue Ribbon in the halter class.

Farsul was named, Arab-style, by combining parts of his sire's and dam's names. He is a pure Arabian horse whose ancestry can be traced back to the original desert-bred stock. Irv bought Farsul in Albuquerque about three years ago from owners who had transported him from Portersville, Calif., where he was born and raised. A beau-

tiful chestnut, Farsul stands over 15 hands high and is nine years old.

In teaching riding or "basic equestrianism," as he prefers to call it, Irv uses the flat English saddle.

"Once a person has mastered the English saddle," Irv says, "he won't have any trouble with any other type."

Irv's future plans include buying a companion horse and securing an acre of ground for pasture and training. "Then," he says, "I can devote more spare time to teaching riding."

Swimming Pool Memberships Open At Livermore Lab

Opening of the Lawrence Radiation Laboratory swimming pool is tentatively scheduled for June 15, it was announced last week. The pool will be used on a membership basis by LRL and Sandia employees plus associated contractor and military personnel.

The 50-meter enclosed pool, 75 ft. wide by 165 ft. long, will be administered by the Radiation Lab Recreation Association. Plans are to open the pool from 12 noon to 8 p.m. through August. Pool hours after August will be 12 to 1 p.m. and 3 to 6 p.m. The pool will be closed from December through February for maintenance and improvements.

Memberships in the pool—\$15 a year for individuals or \$30 for families—are now being accepted at Employee Services (8212-2).



FARSUL, prize-winning Arabian horse, assumes classic pose under the hands of his master Irving Ellicott (8114-1). Before coming to Livermore, Farsul won a blue ribbon in the halter class at the New Mexico State Fair in Albuquerque in 1958.

Sandia's Safety Record

Sandia Laboratory HAS WORKED 11,805,000 MAN HOURS OR 327 DAYS WITHOUT A DISABLING INJURY

Livermore Laboratory HAS WORKED 3,254,300 MAN HOURS OR 1,573 DAYS WITHOUT A DISABLING INJURY