

SANDIA LAB NEWS

published every other Friday for the employees of sandia corporation, contractor to the atomic energy commission

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Albuquerque, New Mexico

July 12, 1957

Two Sandia Bargaining Units Call Work Stoppage on July 1

A number of employees of Sandia Corporation represented by two bargaining units went on strike Monday, July 1, after their Agreements with the Corporation expired June 30. The bargaining units involved were the Office Employees International Union, Local 251, and the Atomic Projects and Production Workers, Metal Trades Council.

Sandia Corporation had been in negotiations with the Office and Clerical unit since May 7 and the Production and Maintenance unit since May 8.

The Agreements under which the Unions had been operating were in effect for two years. One year ago, as provided in these Agreements, a wage increase was negotiated.

Unions Ask Changes

In initial meetings the Production and Maintenance unit demanded revisions of 18 of the 40 provisions of the old Agreement and introduced one new demand. The Office and Clerical unit proposed 17 changes in the 37 articles of their Agreement and introduced three new demands.

Management's initial position was that terms of the existing Agreements in general were fair and equitable for employees, the Unions and the Corporation. However, Management recognized that some administrative modifications and some upward adjustments in wage rates were appropriate.

Agreement Negotiators

Negotiators for Sandia Corporation are L. J. Heilman, Superintendent of Industrial Relations; E. C. Peterson, Manager of Labor Relations Department, and W. H.

Chandler, Supervisor of Labor Relations Section.

P&M Council representatives are W. F. Leverenz, Jr. (2153) President, H. E. Burrell (2124) Vice President, and W. M. Jobe (2411).

Later in the Management-Council negotiations they were joined by James Jones, International Representative of the International Association of Machinists.

Union representatives of the Office and Clerical unit were P. J. Cook (5532) President, H. D. Large (7241) Secretary, W. D. Mason (2236), and F. E. Morton, International Representative of the Office Employees International Union. Mr. Mason was later replaced by J. W. Windsor (2711).

Conciliator Meets

H. H. Atkins, local commissioner for the Federal Mediation and Conciliation Service met with the

representatives of the Metal Trades Council and Sandia Corporation for the first time June 10. Mr. Atkins' first meeting with Management and the O&C representatives was held June 18.

Additional mediators from the Conciliation Service joined the negotiations June 24. Members of the Conciliation panel, in addition to Mr. Atkins who acted as chairman, were George Hillenbrand of San Francisco, and Stephen Halligan, Denver. Mr. Halligan had previously participated as conciliator in the 1956 wage opener negotiations at Sandia.

The panel continued to meet with Sandia Corporation negotiators and the bargaining unit negotiators in separate and joint meetings until the Unions went on strike July 1. Since that time they have been in meetings from time to time with Management and the Unions separately.

Club Members 'Take to Beach' For Annual Ball Set For July 27

Albuquerque's "Sands of Enchantment" will be dubbed with the title of "beach" on the occasion of the Coronado Club's annual Beachcomber's Ball July 27.

The big summer costume party will feature prizes for the best dressed couple and two additional prizes will be awarded for individual costumes. J. Caldwell and his orchestra will provide the musical waves for dancing from 9 to 1.

Reservations for the ball will be accepted at the Coronado Club office beginning Monday. Admis-

sion is 50 cents per member, \$1 plus tax per guest.

Other events scheduled on the club calendar for the next two weeks include two informal Saturday dances, buffet and dance, teen dance, and the Family Night movie.

Tomorrow night the MBC Trio will play for an informal dance at the club from 9 to 1. The following Saturday, July 20, Al Hamilton and his orchestra will entertain. Admission is 50c for members, \$1 per guest.

President's Message

To Sandia Corporation Employees:

A strike is always unfortunate. Wages missed and time lost are not soon regained. Tensions of the period are upsetting. I regret that officers of the Unions felt this strike action necessary.

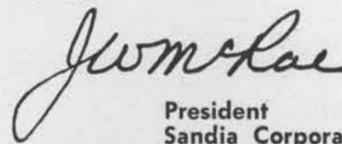
The strike of the Office Employees Union and Metal Trades Council is now ending its second week. Numbers of employees within these two bargaining units have been staying away from work. These employees have already suffered a significant loss in wages.

Extensive studies have shown that wages, fringe benefits and working conditions at Sandia already are among the best available throughout industry.

During the recent negotiations Sandia Corporation proposed improvements in wages and fringe benefits. We are ready and willing to continue our efforts to negotiate a contract but we cannot agree to the current demands of the Unions.

While it is difficult to maintain normal operations during a period when so many good employees are away from work, over 5000 of our employees, most of whom are not represented by Unions, are at their jobs and this has made it possible to carry on programs and meet schedules.

It is my sincere hope that an agreement will soon be reached.



President
Sandia Corporation

A. B. Metzger Named Resolutions Chairman

At the annual meeting of the National Society of Professional Engineers, held recently in Dallas, Tex., A. Burton Metzger, Corporation Safety Director, was appointed National Chairman of the Committee on Resolutions. He is presently completing his second term of office as National Director of that organization.

Mr. Metzger was also the principal speaker at the recent Annual Banquet of the Western Conference of State Boards of Registration of Professional Engineers held in Albuquerque.

Movie Schedule

Everything from snakes to skiing will be included in the Corporation's free noon hour movie schedule the coming two weeks.

"Ski Tips" and "Behind the Scenes in the Disney Studios," both in color, will be shown July 16-19.

On July 23-26 the program will include "Snakes," "Menu Planning" and "British Isles, Land and People."

Five-Month Shorthand Course Completed

A Corporation refresher course in Gregg shorthand has recently been completed by two groups.

The five-month course was offered during the noon hour in the training building. Another similar course will be started in early September.

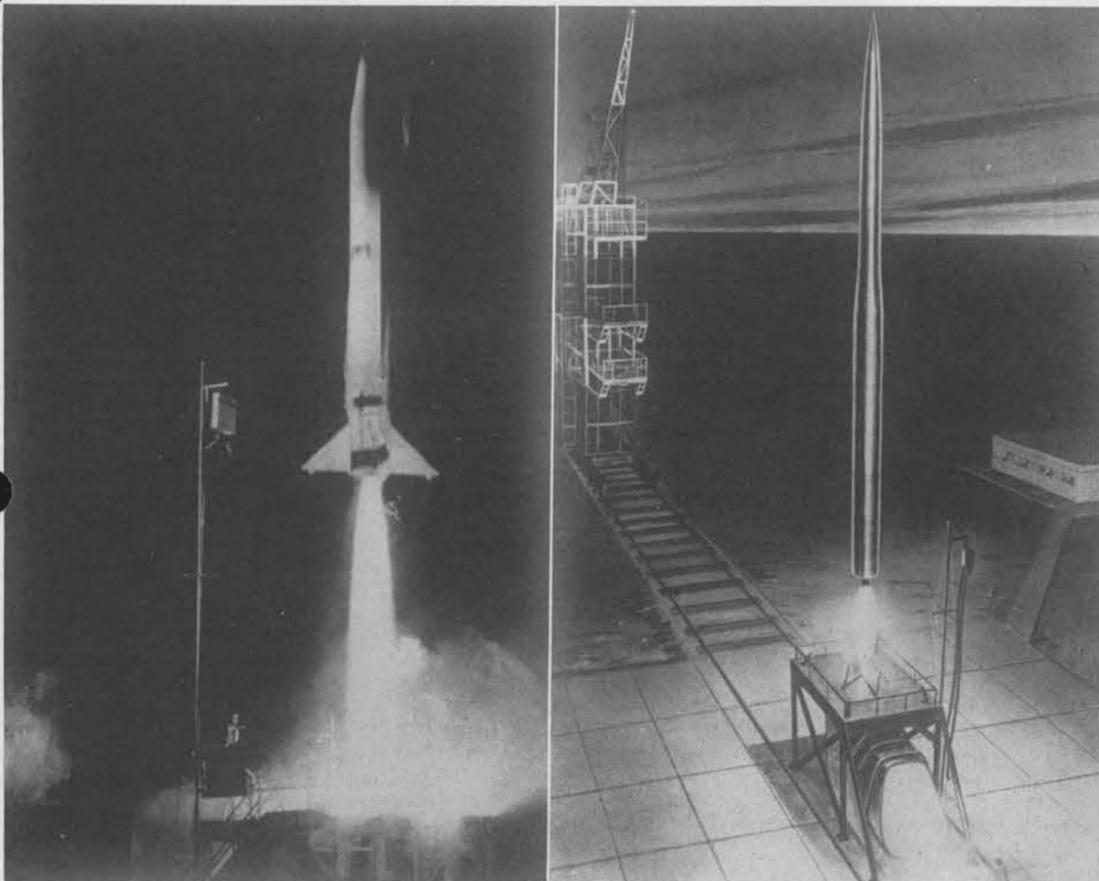
Those successfully completing the class taught by Calla Ann Crepin (7225) included: Gloria Garcia (7225), Patsy Nelson (7225), Florence Bonnell (6020), Pilar Llamas (6021), Flossie McCoy (7225).

Marcella Samuelson (7225), Eloisa Griego (7225), Lydia Villanueva (7225), Terry Halpin (2315), Nellie Brown (2314), and Nita Qualtrough (2343).

A second class, instructed by Sue Moreton (7225), was completed by: Bea Haines (2721), Frances McKenzie (2220), Peggy Hagan (7225), Nell Claunch (7225).

Mary Ellen Smith (3151), Doris Kokkes (2723), Ann Ercole (7225), and O'Donna Gunn (2112).

Time Nears For Man's Initial Adventure Into Space



A THREE STAGE ROCKET will be used to take the earth satellite to a point about 300 miles into space where it will go into orbit around this planet.

Left is an actual firing of the first-stage rocket at Patrick Air Force Base, Fla. Right is an artist's conception of the three-stage launching rocket.

Man's most ambitious venture into outer space will take place later this year when a scientific satellite will be placed in orbit around the earth.

Under the supervision of the Naval Research Laboratory, the satellite will be sent up to an altitude of about 300 miles. While circling the earth at a speed of 18,000 miles per hour, small instruments inside the magnesium-skinned sphere will record vital information about the world we live in.

Pea-sized transistors (made by Western Electric Company) will radio this information down to special monitoring stations located about the earth.

The satellite, a 20-inch diameter man made moon, will be in the third stage of the 72-foot rocket. Resembling a giant 30-calibre rifle shell, complete with bullet, the satellite is scheduled to be launched into the stratosphere to obtain scientific information during the 1957-58 International Geophysical Year.

Knowledge gained from the satellite experiment will be shared by most of the nations of the world as a part of the agreement for observance of the International Geophysical Year which started July 1.

The earth satellite project will be but the first of man's explorations beyond earth. Recently, a Los Alamos scientist who is working in nuclear propulsion of rock-

ets, told New Mexico newsmen that it was his personal opinion that man would have rockets on the moon in about six years and that within 16 years the first manned rocket would go to the moon and return.

Sandians Assist in Search, Rescue Work Recently

Search activities have played important parts in the lives of several Sandians recently.

A number of Corporation friends helped in the search for nine-year-old Raymond Schowers, son of Beatrix (2461) and Robert Schowers (1441), who was lost overnight in Cienega Canyon on the east slope of the Sandias. The youngster became separated from his camping group but survived his 17 hours in the mountains without mishap.

Another Sandian, Edgar Thompson (1464), took part in the Civil Air Patrol ground party search for a private plane downed in the Manzanos. Edgar has been in the CAP for eight years and has flown rescue missions as well as assisting in the planning activities.

Joe Hankins (5122) was an observer in the CAP plane which sighted the body of one of two Albuquerque boys who drowned in the Rio Grande last week. Sandia members of the Caravan Radio Club also assisted in the search.



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Cherry Fellner, Don Graham, Assistant Editors Robert S. Gillespie, Editor



Charles A. Graves Funeral Services Held

Funeral services were held last week for Charles A. Graves, who had been at Sandia nine years.



Mr. Graves

Mr. Graves, a security inspector, died June 29 after an illness of two months. He was 47. Burial was in the Sunset Cemetery. Survivors include his widow, Millie Graves who is employed as a bindery operator in organization 2462, a son, Foy, who works as a motor vehicle messenger in organization 2461-5, and a younger son.

Cecil Wallace, 53, Dies of Heart Attack

Cecil Wallace, a Corporation employee for more than five years, succumbed June 29 to a heart attack. He was 53.

Mr. Wallace worked as a rigger in Shipping, Receiving and Transportation Section (2112-4).

He is survived by his widow, a 17-year-old son stationed with the Navy in San Francisco, a married daughter in Detroit, Mich., and a daughter, age 14. Burial was at Fairview Park.



Mr. Wallace

Sympathy

To Fae Parker (5242) for the death of her father.

To Emily Makal (4135) for the recent death of her father in Albuquerque.

To Wally Nott (4135) for the death of his mother in Minnesota on July 2.

Congratulations

Born to: Mr. and Mrs. M. H. Brock (5222) a son, Barry Bern, on June 22.

Mr. and Mrs. J. S. Zappas (4112) a son on June 29.

Mr. and Mrs. C. I. Votaw (1451) a son, Anthony Dean, on July 3.

Mr. and Mrs. Daryl Anderson (1452) a son, Kerry Kent, on July 2.

Sandia Toastmistress Honored

Bernice Duke (4131) has been accorded a special honor by one of the local International Toastmistress organizations. She will represent the chapter at the group's international convention in Dallas July 15, 16, 17.

Bernice is secretary of the chapter to which she belongs.

Entertain Exchange Students

A breath of European atmosphere prevailed over the homes of Haddon Redding (4113) and Dale Bellamy (Credit Union) during the Independence Day holiday. Both families joined many others in Albuquerque in entertaining teenage youngsters here under the American Field Service Foreign Exchange Scholarship program.

The Reddings feted an enthusiastic French miss, who had been attending high school in South Gate, Calif.

The Bellamys gave their attractive 17-year-old Austrian girl a grand tour of Albuquerque, Old Town and Isleta Pueblo.

The students caused quite a sensation when they stepped from their special buses—all were chewing gum in proper American fashion.

Sandianotes . . .

Rapids in Grand Canyon Provide George Steck Vacation Excitement

Pretty soon George Steck (5125) will know the Colorado River from its source to mouth.

Last summer George made a 163-mile trip down the river from Hite, Utah, to Lee's Ferry, Ariz. Last month he started at Lee's Ferry and ended up 90 miles downstream at Phantom Ranch in the Grand Canyon. Both trips were made on several boats lashed together.

As George described the trip, "Last year it was 95 per cent pleasure and 5 per cent excitement, this time it was the opposite. The water was about 50 ft. higher than previously and many of the sand bars where we planned to camp had disappeared."

There were 31 persons on the four day trip. At one place the rapids created 15 ft. waves and both of the boats shipped water.

The group investigated one cliff dwelling, where they found bits of broken pottery and flint, but generally the weather didn't allow much climbing. Although the water temperature was 64 degrees, the mercury in their thermometer hit 120 degrees atop a mesa.

Canal Zone Vacation

Enough water to flood a desert was seen by Howard Shelton (5524-2) and his wife during a recent visit to Panama, Canal Zone.

Highlights of the trip included an airplane ride over the Caribbean, deep-sea fishing during which they caught 3-foot long Green Dolphins, and views of the flow of ships through the Panama locks.

Sandians in Summer Service Training

It's off to summer training for several National Guardsmen and reservists in organization 1450. C. E. Sandy, Bob Edwards, and Charles Barnes are leaving for a two-week N. M. National Guard encampment at Fort Bliss, Tex.

Dave Miller will be going to Camp Polk, La., as part of his reserve training in the Tank Corps.

Celebrate Anniversaries

Two members of 5120 organization are celebrating recent wedding anniversaries. Clair Abraham (5121) and his wife noted 18 years of marriage on June 30. Hugh Colvin (5126) and his wife will observe their seventh anniversary on the 15th.

Ruby O'Connor (7121) and husband Charles (2352) celebrated their 24th wedding anniversary on June 24.

Sandians Who Serve

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

Charles L. Hines' initiation into politics as a State Representative from Bernalillo County at the 23rd New Mexico General Assembly gave him a close look at the problems confronting lawmakers.

He considers his main contribution during the session the introduction of a bill (passed into law) which places the responsibility on parents for malicious property damage done by children under 18. As Charlie explains, "The law makes parents keep track of their children."

The measure is patterned after a 1953 Michigan law which apparently has greatly aided in cutting down on juvenile vandalism. Until now there has been no way a person could collect money for such property damage unless assistance was volunteered by the parents.

Charlie also introduced a bill at the request of the City of Albuquerque which approves the financing of off-street parking facilities by revenue bonds.

During the session the Republican legislator served on the transportation committee which okayed the new 70 mile per hour daylight



Charles L. Hines

speed limit, on the natural resources committee, which boosted the severance tax on uranium, and the privileges and elections committee, which approved many bills generally revising the election code.

At Sandia, Charlie is a personnel interviewer in 3151.

Why Test Atomic Weapons?

If the testing of nuclear weapons bothers some people in the world why not quit? We have fired scores of devices and weapons — enough to be reasonably sure they will work. Why continue to upset those who don't like nuclear tests?

Most of us would gladly settle for a world with no nuclear weapons. It is interesting to speculate what wonders would emerge from Sandia Laboratory, Los Alamos Scientific Laboratory and the University of California Radiation Laboratory if they did not need to work on weapons.

But, until the day arrives that ALL the world says "no more nuclear weapons," and sincerely means it, our work will continue at Sandia and the other weapons laboratories in the atomic energy program.

As the need for these weapons continues so will the need continue to test them.

No matter how automated the world may become, there will be no way to take the tremendous step from theory of scientists to completed weapons without testing.

The Calendar, publication of the University of California Radiation Laboratory at Livermore, looks at it this way:

"Progress in the development of atomic weapons depends upon four basic factors:

- 1. Theoretical investigations and calculations
2. Primary experimental research
3. Component development experimentation
4. Full scale nuclear detonations

"None of these four steps can be eliminated. If any one program falls behind, the rate of weapons progress slows. The rate of testing depends on the rapidity of generation on new ideas."

Calculating, designing, making, delivering, and guarding against nuclear weapons involves a knowledge of atomic explosive phenomena and of the effects of atomic detonations, The Calendar points out.

Thus atomic tests must continue until a fool-proof disarmament plan is universally accepted.

In the ring, the boxer who drops his guard even momentarily is finished. The world has seen nations go down for the 10-count. It must not happen here.

Secretary Feted

Men in Production and Engineering Methods Division 4111 recently feted their Division secretary, Marjorie McDowell, on the occasion of her fourth service anniversary with Sandia Corporation. She was presented with a corsage and luncheon by her appreciative co-workers.

T. L. Tuffnell Receives 30-Year Service Pin

A service pin in recognition of 30 years with Western Electric has been presented Thomas L. Tuffnell, supervisor of SA Tube Components Section (2542-3).

Mr. Tuffnell came to Sandia last December.

He joined the Bell Laboratories in 1927 as a student assistant in submarine telegraph development.

Eight years later he was made a member of the technical staff.

In 1941 he transferred to Western Electric in New York where he was an operating section chief on reflex oscillator assembly. In the 10 years prior to coming to New Mexico Mr. Tuffnell was an engineer on carrier tubes at Western Electric's Allentown, Pa. plant.

Idea Accepted

An idea submitted to the Electronic Design magazine by Davies Anderson (5222) has been accepted for publication in an early issue.

Davies' idea was titled "Wrong Pulse Polarity Circuit."



Mr. Tuffnell

Five Years Ago

Sandia President Donald A. Quarles elected national president of the American Institute of Electrical Engineers. He urges engineers to keep abreast of the "atomic fission, supersonic" age . . . Eleven Salton Sea employees, fishing off San Diego, rescue six men thrown into the ocean when their small boat capsized . . . Sandians donate 295 pints of blood during a visit by a Red Cross Mobile Unit. Most of it will be flown direct to Korea . . . The Joint Congressional Committee on Atomic Energy confers at Sandia with military and naval officers and officials of Sandia Laboratory . . . Several score of Sandians are in Nevada working on the nuclear tests under the direction of G. A. Fowler . . . In the previous 10 months 52 Sandians submitted ideas to the AEC patent office in Washington, D. C.

Supervisory Appointments

JAMES H. MAFIT to supervisor of Section 1842-1, Sandia Corporation's Livermore Branch.



Jim was with Sandia from June, 1951, to March, 1955, as a plant engineer. He resigned at that time and rejoined the Corporation in November, 1956, at Livermore as a staff member.

During the intervening time he worked at Los Alamos as a mechanical superintendent for Skidmore, Owings and Merrill, AEC architect engineering contractors, and as a project architect for UCRL at Livermore.

He holds a Bachelor's degree in architectural engineering from the University of Houston.

During World War II Jim served in the Navy on submarines.

ROBERT B. DEWHURST to supervisor of Section 1841-2 at Sandia Corporation's Livermore Branch.



Bob has been with Sandia since June, 1953, initially as a technical writer in the reports section. He transferred to Livermore March, 1956, as a technical department service representative.

Previously he was a newspaperman in New York, Texas, and New Mexico.

Bob has a Bachelor's degree in government from the University of New Mexico.

During World War II he served three years as a radar maintenance man.

CARMELO R. RINDONE to supervisor of Section 1812-3, Project Division at Sandia Corporation's Livermore Branch.



During his six years with Sandia Corporation he has worked as a design draftsman, and staff associate - designer. He transferred to Livermore last November.

Prior to moving to Albuquerque Carmelo worked as a draftsman-designer for Chance Vought, Consolidated Vultee and General Electric.

He served in the Army Air Corps for three years during World War II as a single engine pilot. He now holds a commercial pilot's license.

JAMES B. McMINN to supervisor of Division 1841, Sandia Corporation's Livermore Branch.



Jim was hired by Sandia five years ago and served as an administrative assistant for 5000 organizations until October, 1955, when he was transferred to Livermore. In March, 1956, he was promoted to supervisor of an administrative section.

Prior to joining Sandia he was an administrative supervisor for the Potash Company of America in Carlsbad, N. M.

He served in the Army for eight years and was a prisoner of the Japanese for four years during World War II. He left active duty in 1951 with the rank of lieutenant colonel.

ROBERT LYNES to supervisor of Operations Division 4142, Electronic Data Processing Department.



During Bob's six and one-half years with Sandia he has been in auditing and vouchering work. He became a section supervisor in Sept. 1953, and recently participated in feasibility studies regarding electronic data processing.

From 1943-51 he worked in auditing with various companies in San Francisco.

He has a Bachelor's degree in commerce from the University of California and is a member of Beta Alpha Psi, accounting honorary.

CECILE B. McINTOSH to supervisor of Section 1832-4, Administrative Division at Sandia Corporation's Livermore Branch.



During Cecile's four and one-half years at Sandia she has served in secretarial capacities in development line groups and in the training division 3124. She transferred to Livermore last December as secretary to the Director of Systems Development (1800).

Before being employed by Sandia she worked in secretarial capacities for the Y.M.C.A. and the American Red Cross in New York City.

RICHARD M. ALLAN to supervisor of Electronic Data Processing Section II, 4141-2.



"Max" has worked in organization 4100 during his entire four years with the Corporation, first in clerical processing and later in accounting methods.

He was previously employed for three years by the Kupp Construction Co. of Great Bend, Kan., as manager of their accounting department, and was with an electrical construction company in Hutchinson, Kan., for four years.

Max received a Bachelor's degree in economics from Washburn University and a Master's degree in accounting from the University of Colorado. He is a member of Beta Alpha Psi, accounting honorary.

During World War II Max served in the Army here and in Europe.

ARNOLD C. LAMB to supervisor of Section 1831-1, Administrative Division I at Sandia Corporation's Livermore Branch.



Arnold joined Sandia in January, 1952, and worked in Albuquerque as an expeditor, order analyst, purchasing and supply coordinator and staff assistant. Since April he has been at Livermore as a staff assistant.

Previously he was with the AEC security office at Los Alamos and Albuquerque.

Arnold served in the Army Air Corps for three years during World War II and still holds a reserve commission in the Transportation Corps.

Sandia Hikers Explore Malpais Seeking Lost Ruins, Treasure



TOUGH FIGHT FOR SURVIVAL is encountered by every pine or plant trying to grow on the lava beds. Wind probably twisted this gnarled evergreen being examined by Zelma Beisinger (5126).



SIZEABLE OPENINGS occur throughout the lava flow. In this underground cavern a person could walk upright for about six feet. Although a natural hiding place for Indian relics or hidden treasure, Mountain Club members returned to surface empty-handed.

Over in western New Mexico the natives call the thick bed of lava which flows southward from the town of Grants "malpais"—and "bad country" is truly a good name for the area.

Driving west from Albuquerque on U. S. Highway 66 just east of Grants the motorist suddenly comes upon the thick, jagged black rocks that mark the flow from extinct volcanoes. The New Mexico Mountain Club recently chose the east side of the 12-mile-wide bed as the site of a one-day hiking expedition.

From U. S. 66 the members drove 20 miles south on State Highway 117. On one side sheer cliffs of pock-marked sandstone tower above the sandy road. On the opposite side the range grass ends suddenly at a jagged black ridge several feet high in most places.

Trip leader Zelma Beisinger (5126) guided the hikers along the edge in search of caves (caused by air bubbles) which sometimes contain pottery or other Indian relics. The lava flow was a natural hiding place for local Indians, who would gather their sparse belongings and flee to safety when enemy warriors appeared.

Geologists theorize that the lava represents flows from numerous volcanoes over a lengthy period of time. A piece of pottery recently found imbedded in the lava indicates that one flow may have been as recent as the year 1200.

As the Mountain Club members hiked toward the center of the flow they passed through small forests of gnarled pines. The only other vegetation seen was half-dried out cactus rooted in soil caught in a shallow crack or depression, several bright green ferns growing along the side of a crevasse, and lichens, which cover much of the black rock with a faded green mold.

The area is rich in lore of hidden treasure and lost gold mines, of Civil War soldiers found preserved in an isolated ice cave, and of Wells-Fargo hold-up money. The most popular legend is that of a prehistoric Indian pueblo of white sandstone located somewhere in the middle of the flow.

The Albuquerque hikers found two different markers of stone piled several feet high, but no one could locate the key to the treasure.

Moonlight Climb of Sandias Planned

A moonlight hike up La Luz trail in the Sandias is planned for the New Mexico Mountain Club Saturday night, July 13. Sunday the group will be joined by others who will drive up the rim of the mountains to climb the "Thumb."

Another rock climb in the Sandias is scheduled the following weekend, Sunday, July 21. Dick Martindell (1422) will be the leader of the group.

Officer in Libraries Ass'n

Charles Sargent (7223) was recently appointed Bulletin Editor for the Rio Grande Chapter of the Special Libraries Association. This is in addition to his duties as chairman of the Publications Committee of the Albuquerque Library Association.

MALCOLM SNYDER to supervisor of Final Assembly Division 2211.



He has been at Sandia nearly eight years, principally in the production control activities. Malcolm has headed a section for six and one-half years.

Prior to coming to Albuquerque he worked two years for Willis Overland Motors in Toledo as staff assistant to the production manager. He also was employed four years in production control at Dana Corporation in Toledo.

During World War II Malcolm served in the Naval Air Corps for four years. Most of the time he was on an aircraft carrier in the Pacific.

He majored in industrial management at the University of Toledo and has been continuing his studies at the University of New Mexico.

WILLIAM R. PARKER to supervisor of Branch Shop Section 2152-4, Mechanical Department.



Bill has been doing fabrication work since he started at Sandia in Sept., 1950.

He previously worked 13 years as a machinist for the Santa Fe Railroad in Albuquerque.

A native of Albuquerque, Bill attended the University of New Mexico for three years, majoring in biology.

Sandia Credit Union Assets Hit \$2,800,000 Mark At End Of June

Assets of the Sandia Laboratory Federal Credit Union reached \$2,800,000 at the end of June and Credit Union President Robert Blount expects share deposits in the organization to reach that same mark today.

Assets include reserves held by the Credit Union and equipment owned by the organization.

"At the end of June there were 5,100 members in the Credit Un-

ion," Mr. Blount says, "and 3,830 of these were borrowing members."

Officers of the Credit Union encourage Sandia employees to investigate Credit Union loans before they borrow money any place. "Lower interest rates, payroll deductions, life insurance and lack of red tape make Sandia Lab Federal Credit Union loans attractive," says Blount.

Welcome Newcomers



FLOYD MCGIMSEY explains the action of this duplicate 1806 Harpers Ferry pistol, one of 20 he has built in the past five years.

Scarce Weapons Reproduced By Deft Sandian; Not for Sale

Floyd McGimsey has been counterfeiting for five years—and he's still getting away with it.

No flagrant forger, however, this ex-gunsmith builds precision, serviceable duplicates of antique pistols and rifles. In his home machine shop at 5521 El Encanto Rd. NE he has assembled models of most ignition type weapons, both European and American, which represent centuries of evolution in the art of gun making.

Nearly 200 hours went into his copy of a Paterson Colt, .40 caliber rifled five-shot percussion-cap repeating pistol. An original of this model, says Floyd, is valued at \$1400-\$1600. "Used in 1836, it was the first revolver produced with a mechanism to turn and lock the cylinder in place by retraction of the hammer."

Made Flintlock

His oldest is a Swiss flintlock hunting pistol which dates back to 1619-1650. His English pistols and revolvers from the 1700's, mostly in the sporting class, are ornate and reflect the artistry of the craftsmen of the period.

Floyd has made several long-barreled Kentucky pistols and rifles, with stocks of beautifully grained curly maple and brass furniture. He describes these flintlock and later percussion arms as the "first true American guns."

Actually, Floyd built his first gun—a Varmint rifle with falling block action—when he was 12. "The rifle was experimental," he says, "in that it was an early example of the transition from low to high velocity firearms."

After school hours, he worked for a machinist, making modern gun parts, and by the time he was in high school, he operated his own "Mac's Gun Shop" in Lincoln, Nebr. He built custom weapons which he says were not standard guns with special stocks or barrels, as customs are known today, but rather guns patterned completely to an individual's specifications.

He had also started collecting guns, both modern and antique, and bought or traded close to 700. In 1949 he sold his business, collection and all—except for a couple of hunting rifles—and moved to Albuquerque.

Having acquired an extensive knowledge of mechanics during his years as gunsmith, he became interested in the machine trade and in August, 1951, became a machine repairman at Sandia Corporation. He is now in Area I Activities Section 1613-3.

It was only after 1951, when he no longer had to depend upon gunsmithing for his livelihood, that he could devote time to a long-nurtured ambition—copying antiques.

Whenever possible, he uses the original as a guide. Many are extremely rare or costly, and often times he must work from photographs or old sketches. When

these are projected to actual size on a screen he can make precision drawings of components. Each part is then tooled by hand.

Authentic—Almost

There is perhaps only one departure from the authenticity of the originals. While Floyd duplicates materials used in the old models—including walnut, maple, steel, nickel, brass, silver, gold, ebony, even horn of all types—he does not attempt to age them. "Although," he jests, "a few seasons in the garage help a lot."

One other facet of Floyd's hobby stems from his early preoccupation with gun lore and history. Believing that useful mechanical ideas have been lost through the years because of inadequate tooling and processes, he builds experimental gun models, incorporating faults of originals which he keeps just for this purpose.

Then he impersonates the early gunsmith, tries to perfect the guns as he would have had modern machinery and tools at his disposal.

Does he sell any of his reproductions? No. The 20 or so copies in his collection were made strictly for his own pleasure and to supplement an expanding collection of genuine antiques. Occasionally he will trade or give one to a fellow "gun-toting" friend.

Certainly his would be a profitable friendship to cultivate. Any one of his copies might bring \$400 and upwards.

June 24 through July 5

Albuquerque	
Rafael Armijo	2474
William S. Austin III	2461
Ernest J. Bernard	1423
Elizabeth Best	2462
Kenneth A. Blush	2474
Edward Bakore	7411
Truman N. Casson, Jr.	7422
Miller N. Cravens	1262
John R. Crye, Jr.	2418
Nicholas C. Duffly	7322
Robert P. Fjelsted	7226
Richard Gallegos	7241
Max L. Gonzales	2474
Rudyard Goode	2513
Richard H. Hicks	2121
Nedra P. Hunt	7225
Vernon E. Kerr	2441
Herman Kirby	2474
Lawrence L. Levanier	2314
Rebecca Maglidt	7221
Sherman Marsh	2462
Baltazar E. Martinez	1245
James M. May, Jr.	2225
Erminette McCracken	1243
Charles R. McKelvey	7221
Murl B. Moore	2441
Peter Olguin	2352
Mary Paul	3153
Bernice Proffitt	7225
Franklin M. Propst	1452
Ritz J. Rayburn	2542
Geraldine Rehkop	7226
Dorothy Schweitzer	4135
Harold G. Slocum	5242
Maxine D. Sudbury	2711
Rudy B. Sutton	2343
George R. Swain	1652
Frances Tomlinson	7319
Antonio Villegas, Jr.	2474
Carol J. Welborn	7225
James D. Whitfield	2721

Alabama	
Edward C. Dowling, Auburn	1421
Kenneth L. McClelland, Auburn	1624
Arkansas	
Doyl D. Frasier, Werner	1245
California	
Irmal R. Brown, Livermore	1832-4
William T. Byroads, San Jose	1811-2
William S. Dawson, San Leandro	1812
David D. Kirk, Jr., San Francisco	1812
Edith F. Millatzo, Livermore	1832-4
Mary L. Millatzo, Livermore	1832-4
Russell V. Richards, San Diego	1822
Colorado	
Frank L. Caldwell, Jr., Boulder	2552
Jackie St. Clair, Denver	5513
F. Vivian Richards, La Junta	7225
Connecticut	
Arnold H. Kritiz, New Haven	1464
Delaware	
Robert W. Donohoe, Wilmington	5522
District of Columbia	
Ga. S. Bowen, Washington	1422
Georgia	
Irvin N. Madden, Atlanta	1462
Illinois	
Donald Chenoweth, Champaign	5142
Donald E. Myers, Mahomet	5122
Basil Ohnysty, Urbana	1626
Peter P. Stribis, Chicago	1422
Theodore S. Trybul, Chicago	5143
Indiana	
Karlan Boultinghouse, Connersville	7412
Charles T. Force, West Lafayette	5142
Donald J. Rigoli, South Bend	5144
William A. Stephenson, Valparaiso	1411
Larry Tabor, Indianapolis	7412
Iowa	
Graydon P. Hass, Harris	2533
Eldon Julius, Ames	1614
Norman J. Pokorny, Ames	2532
Raymond E. Rychnovsky, Cedar Falls	2533
Lyle H. Schultz, Castalia	2533
Kansas	
Virgil Erbert, Hays	1261
Orval B. Elliott, Atchinson	2123
Stuart E. Whitcomb, Manhattan	5132
Louisiana	
William H. Bradford, Lake Charles	5121
Maine	
Stephen D. Chester, Orono	1453
Massachusetts	
William S. Giffin, Cambridge	1282
John Munn, Quincy	2551
George F. O'Hara, Boston	5224
Michigan	
Franklin E. Diebold, East Lansing	2552
Richard L. Smith, Detroit	2531
K'hard J. Plugge, East Lansing	5525

Minnesota	
Leon Maschoff, Fairmont	1411
Mary J. Nelson, Clarkfield	2464
Missouri	
Arthur Cannon, Columbia	5523
Clarence E. Haag, Kansas City	1652
Elven W. Kieffer, Kansas City	1423
James C. Mick, Belton	2151
Larry Opplinger, Rolla	1611
Kenneth W. Shriver, Rolla	1822
Richard A. Wilson, Kansas City	2541
Nebraska	
Dale Buchanan, Omaha	1612
Roland Struss, Lincoln	1626
New Mexico	
Robert L. Des Jardin, State College	1473
Robert O. Hedges, State College	1624
New York	
Arthur C. Cohen, Flushing	1455
Ronald J. Harron, White Plains	1263
Howard Jones, Hornell	1281
Donald Dvarnstrom, Hornell	1281
Richard W. Vockroth, Elmira	1215
North Carolina	
Charlie O. Dowd, Gibsonville	1455
Charles W. Jennings, Raleigh	1461
Wade T. Parker, Jr., Raleigh	5112
North Dakota	
Kenneth D. Flynn, Minot	5521
Donald D. Wagner, Harvey	2511
Ohio	
Howard J. Gerwin, Woodville	1411
Lawrence C. Jeffers, Columbus	1473
Jerome Lochefeld, Dayton	1614
Maurice K. Laufer, Urbana	1651
Oklahoma	
Clair Abraham, Goodwell	5121
Ruben D. Kelly, Stillwater	1413
Bob G. Smith, Stillwater	7412
John F. Schofield, Tulsa	3152
R. L. Posey, Bartlesville	1225
Oregon	
George F. Darmohray, Portland	1822
Carlton M. Furnberg, Corvallis	1822
Norman F. Jacobson, Klamath Falls	1822-2
Wilford B. Vandermolten, Klamath Falls	1822-3
Pennsylvania	
James J. Bluett, Athens	7422
Charles J. Bradish, Freeland	7413
David W. Bushmire, Cannonsburg	2543
Gordon A. Greene, Lewisburg	1463
Walter J. Hughes, Philadelphia	1224
Richard Jones, Kingston	7412
Robert J. Loncharich, Latrobe	5142
Karl S. Leary, Andalusia	1456
Ian M. Scott, Bethlehem	1621
South Dakota	
Clifford M. Potthoff, Brookings	1822-2
Texas	
David T. Karthaus, Fort Worth	5122
Vermont	
Gerald L. Thompson, Norwich	5120
Virginia	
Roland E. Church, Warwick	7113
Frederick L. Judge, Charlottesville	1611
Washington	
Kenneth G. Byrne, Seattle	2552
Robert C. Frost, Seattle	1821-1
Calvin E. Harthun, Bellevue	1821
Wisconsin	
Byron L. McAllister, Madison	5122

Service Awards

10 YEAR PINS



John M. Freelove 2483 July 13, 1947



Robert M. Sparks 2483 July 13, 1947

William H. Hess 1455 July 24, 1947

FIVE YEAR PINS

July 12-18

Ernestina Romero 2711, John C. Cunningham 1442, Harold T. Cushman 2551, Jack R. Hanna 7218, Robert K. Heck 1471, Jane Robertson 2462, Joan Hartnitt 2332, Ruth Pearson 7225.

M. A. Petrillo 7226, Ruth Redmond 7225, Gladys Didero 2462, Beulah Hansen 4135, Maridel Dyke 7225, Avris McReynolds 2353, M. Louise Sage 5512, Alfred J. Coppola 7326, William C. Garcia 2341, James M. Allman 5143, Robert C. Reineke 1451, and David T. Judd 1612.

July 19-25

C. M. Clendenin 5242, Walter W. Joseph 1222, Robert I. Peterson 5221, Floyd L. Irwin 2232, Winford G. Mabery 2414, Richard A. Candlin 2121, Marian Hazelwood 2461.

Harold D. Finch 5151, Robert V. Vest 2234, Albert J. Angel 2742, Isidore Apodaca 2419, Sylvia Weinberg 7225, Robert E. Wooley 5523, Benedict F. Guerin 7315, and Orvis E. Bush 7321.

TWO YEAR CERTIFICATES

July 12-18

Roberta M. Collins 7225, Carmel Mares 7241, Eugene L. Emerson 1215, Shirley R. Sturges 7131, Ann W. Shiver 5126, Jean A. Langston 7225, and Lola M. Longenbaugh 2333.

July 19-25

Theodore J. Morelli 1263, Carroll R. Davis 7411, Donald N. Munro 1472, Ernest J. Ramirez 2353, Eileen L. Buzard 2482, Harry L. Dillard 2482, and Harry L. Overmeir 2482.

Gardening Tips

Massed Rose Bushes Take Place of Block Wall At Stan Urevitch Home



Stan and Jo Ann Urevitch —Problem of Thorns and Texans—

If you're faced with making a decision between block wall or picket fence consider the happy choice of Jo Ann (2210) and Stan (2114) Urevitch. They've hedged their corner lot with rose bushes.

It was a big job setting out the 200 bushes but they have grown into a dense thicket of glowing color. The most common variety is "Fashion" which is about three feet high and changeable light red in hue. For accent points at the corners Jo Ann and Stan chose the darker red "Vogue" that is also slightly higher.

The Urevitchs have their sprinkler system arranged so that excess moisture from the lawn drains off onto the rose beds. The soil should be wet to a depth of 12" to 18", they say. Cultivate when the surface has dried sufficiently (unless you are using a mulch of organic material) and do not water again until the soil needs it—usually in about a week if the weather is dry. Sprinkling roses is beneficial but only if done early in the morning.

In addition to bulky organic fertilizer to supply elements lack-

ing in the soil, Jo Ann and Stan have had good luck in the use of inorganic foliar feeds. These nutrients are sprayed on the leaves of plants and give quick action. The feed should be applied every two weeks or so when the temperature is under 80 degrees and even application is necessary.

They also have a few words of advice to pass along regarding pruning. Every time you cut blooms from your rose bush you are performing a pruning function, so do it in such a way that it aids the plant. Leave at least two sets of leaflets on the branch from which the flower has been cut so as not to deprive the growing plant of needed leaves. Do not cut blooms with long stems from newly planted bushes. The ideal time of day for cutting a bouquet is from 4 p. m. to sundown, when the sugar content of the plant is at its peak.

When your rose hedge is in full blossom the Urevitchs warn "watch out for Texans—they'll pester you to find out how anything can grow in this forsaken desert."



any way you look at it...

SECURITY IS AN INDIVIDUAL MATTER

"Did I lock that safe? My diary's in there."

Sandians Go to Far Away Places Enjoying Vacations

Sandians in taking vacation trips this year will travel in all directions of the compass. To present a representative cross section the Sandia Lab News found four employees who plan to tour north, south, east and west.

Heading north, Dorcas Crosby (4133) will go all the way to the Arctic Circle. She leaves July 26 for Seattle, Wash., and will visit a nephew there before flying on to Whitehorse, Alaska. After visiting friends in Whitehorse she will take the Alcan highway to Fairbanks and then fly on a two-day tour to Kotzebue in the Arctic Circle.

By Air To Nome

Dorcas will return by air to Nome, to Fairbanks, and then by railroad to visit McKinley National Park in Anchorage. Other points of interest she will visit include the Matanuska valley and Juneau. From Juneau, Dorcas will take a steamship down the Inland Passage to Vancouver, Canada, fly to San Francisco and then home by train. The trip will take 23 days.

South of the Border appeals to Lydia Candelaria (7225 assigned to 5523). She and a friend will fly to Mexico City on Aug. 4 and spend two weeks.

Visit Guadalajara

She will also spend some time in Guadalajara visiting friends. Lydia has never been to Mexico and is eagerly anticipating the experience. She speaks the language and hopes to learn Mexican customs and culture in the small towns around Guadalajara.

In Mexico City she will visit places of interest including the University of Mexico and the famed floating flower gardens.

To celebrate their 25th wedding anniversary Al Gruer (5210) and his wife, Marge, will travel east from New York on Aug. 28 on the Queen Elizabeth to spend six weeks touring Europe. They plan to visit England, Scotland, France, Belgium, Switzerland, Austria, Italy and Monaco.

Al plans to look up the Gruer family tree starting in Edinburgh, Scotland. While there he also plans to attend the Braemar Royal Gathering and the Highlands Festival on Sept. 5.

Celebrate in Monte Carlo

On their anniversary date, Sept. 17, Al and Marge will be celebrating in Monte Carlo.

"We've been planning this trip only 25 years," Al says.

The couple will start home from Southampton, England, on the Queen Mary and will arrive in New York on Oct. 1.

Waikiki beach, swaying palms and Hawaiian guitars appeal to



Dorcas Crosby
—North to the Arctic Circle



Lydia Candelaria
—South of the Border—



Al Gruer
25th Anniversary in Europe—



Norma Jean Eichman
—Waikiki Beach, Hawaiian guitars—

—posters courtesy of TRAVEL SERVICE AGENCY, Simms Bldg.

Norma Jean Eichman (7225 assigned to 5242) and her husband, Dude. They will fly west from San Francisco on Aug. 13 to spend three weeks in the Hawaiian Islands.

Norma Jean is anticipating beach parties, swimming and water skiing. Her husband's brother and his wife will accompany them on the trip. The party will return to the mainland on the passenger cruiser Lelani.

Jean Gillette to Speak At Meeting of Sandia Women's Club July 18

"Making the Most of You" is the title of a talk to be presented by Jean Gillette (3124) to the Sandia Base Women's Club Thursday, July 18.

She will speak at a coffee scheduled for the group at 9:30 a.m. at the Sandia Base Officers Club.

Mrs. Gillette, General Training and Education Division, directs Secretarial and Clerical Conferences for women employees of the Corporation. In the past six years she has instructed more than 1200 employees in human relations, personal development, use of time at home and on the job and problem solving and decision making.

Her talk to the Women's Club will cover conclusions reached in these conferences on qualities needed for personal success.

Mrs. Gillette is Executive Director of the New Mexico Dorothy Carnegie Courses for Women in Personal Development.

No reservations are needed for the coffee, the second in a series of informal gatherings planned by the Club for the summer.



INSIDE TRANSMISSION TENT Gene Bussey (foreground) and Bruce Butler operate broadcasting and receiving equipment. A total of 650 contracts were made during the Field Day activity.



CAMPSITE of the Manzano Mountain Moonshine and Rhombic Society is enjoyed by off-duty operators. L to R are Vaughn Nogle, W. E. Petty, John R. Halliday and Ralph M. Rosenbaum.

Solar Disturbances Put Crimp In Radio Society Field Day Activity

Sunspot activity causing magnetic storms and disturbances hindered the performance of the Manzano Mountain Moonshine and Rhombic Society in recent Field Day activities of the American Radio Relay League, Inc.

The group of Sandians made about 650 contacts with other amateur radio stations in 24 hours. Number of contacts is the basis for judging the contest. Their all time high score that won last year's national competition was 748 contacts and a net score of 660. Final results on the 1957 contest will not be tabulated and announced until December.

"Band conditions were bad," John Halliday (1411-2) said, "and we didn't reach our planned goal of 800 contacts. The only encouraging thing is that conditions were poor throughout the U. S.

and our results might still rank high."

Others in the group include Gene Bussey (1421-1), W. E. Petty (5512), Vaughn Nogle (1413), Bruce Butler, son of Gertrude (5211) and Charles Butler (7111), and Ralph Rosenbaum, Albuquerque.

With only a new receiver modifying their equipment, the group used the same communications set up that won them the contest last year. Two beamed 125-ft. rhombic antennas and a Viking Ranger transmitter operating on 28 watts was the basic equipment. Their W5EKK communications camp was located in the Manzano Mountains.

Purpose of Field Day is to prepare equipment and personnel among the nation's ham operators for communications work in the event of a national emergency.



BOW AND ARROW was used by Gene Bussey to get a pulley line over some 125-ft. pines. With the line shot into position the rhombic antennas were pulled to the desired height.

SHOPPING CENTER

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication.

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

- HAND LAWN MOWER; bird cage w/stand; divan folds into bed; vibrator massager; two cane chairs. Barkers, Alb. 9-2365.
- SCREEN DOOR, 36x80 w/hardware, \$4; interior door, 30x80, single panel, w/hardware, \$5. Le Clair, Alb. 6-4121.
- WINDOW FAN, Wizard, reversible, 12", 1250 CFM, \$15. Thomas, Alb. 9-2694.
- CHILDREN'S DINING TABLE, formica top, 4 chairs, ranch style, very sturdy; male parakeet, cage, stand, \$5. Odell, Alb. 2-8727.
- GRAND PIANO, square, fine playing qualities, 7 ft. bass strings give full bass tone, \$250. Ste-K, Ext. 43168.
- '56 BUICK Super 2-door hardtop, R&H, PB/BS and other accessories, 10,000 miles, \$2450 cash or trade. Schmidt, Ext. 22286 after 5.
- '56 MOTORCYCLE, Harley 74, fully equipped, \$865. Vranson, Alb. 8-0130.
- ELECTRIC RANGE, Gibson, \$30. Calvert, Alb. 5-4190.

SHOPPING CENTER

- 3 BR HOME, lawn front and back, patio, walled, living room and hall carpeted, fully draped, \$1,500. Spring, Alb. 6-5095.
- BUTANE WALL HEATER, 50,000 BTU; space heater, 35,000 BTU. O'Connor, Alb. 4-2840.
- DOUBLE BED, maple, Sears innerspring mattress and matching box springs, \$40. Daut, Alb. 5-2529.
- DEEP FREEZE, Philco Upright, 14 cu. ft., almost new, \$200. Springer, Alb. 6-5095.
- TENT, 9'x9', used once, \$20; Coleman camp table w/4 chairs; Coleman stove and portable ice box. Cordova, Alb. 4-3110.
- CASEMENT WINDOW, complete, steel construction, 51"x53", \$20. Mohart, Alb. 5-7805.
- BABY CRIB, large size, \$15. Stuart, Alb. 5-0661.
- '51 PONTIAC, 4-door, R&H, Hydramatic, 8 cylinder, must see to appreciate, \$500. Tiley, Alb. 6-8110, 2714 Graceland Dr. NE.
- '46 FORD, Leonard, Alb. 8-1660, 1812 Madeira NE.
- MATTRESS, box springs, steel frame for double bed, sell part or all. Joyce, Alb. 6-1605, 1016 Columbia NE.
- CAR COOLER, 6 volt Sears, almost new, \$25; microphone, Schube 555, unused \$25. Barbier, Alb. 9-1305.
- FIBERGLASS BOAT, 12 ft. runabout, remote control, windshield, licensed Conchos & Elephant Butte, 12 hp engine, trailer, Werner, Alb. 9-3591.
- PORTABLE FAN, 2000 CFM Westinghouse 2 speed motor, \$35. Roth, Alb. 3-0522.
- CHILDCRAFT BOOKS w/set of reference books, almost new, \$40. Minter, Alb. 6-9225 after 5.
- POSTER, BED dresser, innerspring mattress, box spring, \$25; glass top coffee table, \$4; Duncan Phyfe drum table, \$10; Henson, Alb. 9-0945.

SHOPPING CENTER

NEXT DEADLINE FOR SHOPPING CENTER ADS FRIDAY NOON, JULY 19

- '57 MERCURY convertible, power steering, power brakes, R&H, automatic seat control, 10,600 miles, retails \$4,400, sacrifice at \$3,000. Scotten, Alb. 9-6236.
- BABY CART, \$4; Taylor Tot, \$1; play pen, \$8.50; trailer wheels, \$2; man's tool chest, 10x10x36", \$2.50. Pope, Alb. 5-6702.
- CEMENT MIXER; mechanized block machine; dishwasher. Want radio equipment, power tools, welder, engine, guns, etc. McMurry, Alb. 3-8511.
- '51 FORD Victoria, R&H, white walls, \$650. Townsend, Alb. 8-0562.
- HOFFMAN ROYAL HOME, 3 Br, 1 1/2 baths, covered patio, walled yard, barbecue, extras, \$16,350. Buck, Alb. 9-4698, 9010 Matthew NE.
- TWO COUCHES, Modern, will make into twin beds, \$20 each or \$25 for one. Thomas, Alb. 9-3838.
- BABY CARRIAGE, Welsh delux, collapsible, easy storage, can be used as a car bed, \$18.50. Boyd, Alb. 5-6451.
- CAMPING TRAILER, sleeps two, butane stove, Martin, Alb. 6-7969 after 5.
- POWER MOWER, Electric Craftsman, reel type, 18 inch, reasonable. Grotberg, Alb. 9-1479.
- 3 BR HOUSE, 1 1/2 baths, large patio, air conditioned, other extras, \$10,300 GI or arrange FHA. Linde, Alb. 9-4667, 9027 Claremont NE.

SHOPPING CENTER

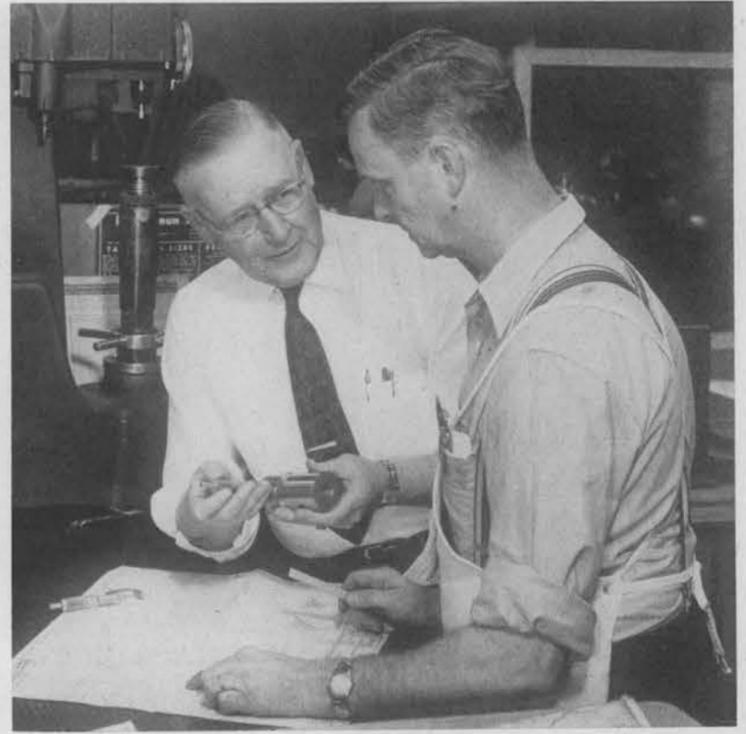
- CHILDCRAFT, 14 volume set, \$25. Adams, Alb. 6-7265.
- GAS FURNACE, 72,000 BTU output, Lennox horizontal, 3-years old w/hot, cold air plenums, pipe for 5-room house, best offer. Haskins, Alb. 3-5780.
- ELECTRIC STOVE, GE, complete w/all accessories; 1600 CFM evaporative cooler, used one season, \$50; natural finish wood table, 4 chairs, \$9; Baca, Alb. 6-2556.
- 2 BR HOME, completely furnished, wall to wall carpeting, walled yard, lawn, \$8628. Thomas, Alb. 9-3242, 3501 Garcia NE.
- PIANO, \$75 or best offer, will trade. Schowers, Alb. 5-9279.
- MANGLE IRONER, GE table model, \$30; GE Mixer, standard, \$15 or best offer. Connolly, Alb. 9-1517.
- MOTOR SCOOTER, '55 Lambretta, buddy seat, windshield, motor needs work. As is, \$100. Holland, Alb. 5-1039.
- SOFA, Dining Room furniture, chairs, desk, Persian rug, screens, library table, piano, make offer. Barnes, Alb. 2-9317.
- ELECTRIC RANGE, Universal w/deep well burner, \$35; Norge washing machine, \$15. Myers, Alb. 6-1670, 526 Dartmouth SE.
- SPINET PIANO, concert pitch, mahogany, \$375. Banos, Alb. 6-6613, 708 Truman SE.
- EVAPORATIVE COOLER, large portable Arctic Circle, pump and two speed motor, squirrel cage type fan. Stewart, Ext. 26141.
- WINCHESTER 30/30 Carbine, \$25, trade for old guns of any kind. Smitha, Alb. 9-1096, 8607 Manual NE.
- '55 FORD Customline, 2 door sedan, over-drive, heater, E-Z eye glass, one owner. Alvarez, Alb. 2-3821.
- AIR CONDITIONER, Vornado, 1120 volts, 3/4 ton, \$70. Wilson, Ext. 42242.

SHOPPING CENTER

- 35mm CAMERA, Clarus, f/2.8 Wollensak, 50mm lens; focal plane shutter; speeds to 1/1000 second; flash attachment; filters, case, \$65. Davis, Alb. 5-8840.
- SWAMP COOLER, 2200 CFM window type, stand and tubing included, \$35. Chandler, Ext. 4-1186.
- '55 BUICK, 4-door special, R&H, dynaflo, power steering, 13,500 miles, clean, \$1695. Sherwood, Alb. 9-2169.
- DUNCAN PHYFE dining room suite, \$150; twin or double deck beds, inner spring mattresses, matching twin chests, \$150; dinette table with glass top, 4 chairs, \$30. Peirce, Alb. 9-0581.
- WANTED
- CHILD CARE in my home, week days, walled yard to play in. Park, Alb. 8-0079.
- PING PONG table, 5x9. Robinson, Alb. 9-0971.
- BUTANE TANK, large size, Shea, Ext. 28258.
- WILL TRADE Winchester 30-30 for 3500 CFM or larger air conditioner w/pump. Edwards, Alb. 9-5496.
- FOR RENT
- 2 BR HOUSE, unfurnished, drapes, carpeting included, walled back yard w/grass, patio, air conditioner, couple preferred. Morris, 908 Madeira NE. Available Aug. 1.
- LOST AND FOUND
- LOST—Ankle bracelet, gold w/name Carol; gold earring w/mesh dangle; Navy electronic technician's book; watch w/stainless steel expansion band; watch w/green scraper; 2 pens in shield; OJO papers; green wallet w/ID cards; fraternity key, Eta Kappa Nu. LOST AND FOUND, Ext. 26149.
- FOUND—Turquoise ring w/hand silver work; lady's gold watch; key in red holder; first three graders booklet, No. A-17525; white leather make-up kit. LOST AND FOUND, Ext. 26149.



VISUAL INSPECTION for missing cables, labels and nomenclature is performed at Santa Barbara Electrical Products while field representative Ray Lewis, right, watches. Inspection for electrical and mechanical performance will follow this check. Ray is a Sandian from the Los Angeles Office.



QUALITY CRAFTSMANSHIP is discussed by E. G. Latimer (left), field representative, with a machinist of Technical Products in Los Angeles. Sandia is insistent on painstaking craftsmanship.

Not a New Concept, But Constantly Emphasized

Sandia and Suppliers Stress Quality, Reliability

Toward the end of World War II the skies over Germany were black with hundreds of Superfortresses raining a torrential flood of bombs. It was not too important that a few of the bombs might be duds or that a few might miss the target. The overall effect of the raid would not be appreciably lessened.

On the other hand, picture the result of the one B-29 that dropped a single bomb on Hiroshima and again a single bomb on Nagasaki.

What would have happened if either of these bombs had not exploded?

The blasts did occur and the war ended quickly in victory—proof that the reliability of weapons must be exceptionally high. Too much is at stake in a modern nuclear weapons program to leave any stone unturned that would permit the manufacture of a dud, the stockpile of a dud, or (if the need ever arises) the delivery of a dud.

Supplier Education

This thought is the driving factor behind one of the most important functions of Sandia Corporation—development of supplier quality consciousness. Currently underway is a far reaching educational campaign for Sandia's suppliers, sometimes called "The production lines of Sandia Corporation."

"Encouragement of supplier quality control and assurance is not a new concept in weapons production," Frank E. Burley says, "but it needs constantly to be emphasized." He is Superintendent of Operations Engineering 2500 and Chairman of Sandia's Supplier Quality Development Committee.

Beyond Commercial Quality

"The Corporation's Production, Inspection, Purchasing, Manufacturing Engineering, Design Standards, Materials, and Quality Assurance organizations are all concerned with the requirement that Sandia's 'product' be manufactured with precision and care beyond regular commercial quality."

To stress the importance of quality and especially the importance of quality workmanship, the Supplier Quality Development Committee takes the problem to the management and to the production lines of the suppliers.

Conference Series

A series of conferences is being held between Sandia Operations Organization 2000 representatives and Quality Control personnel of the suppliers to discuss the Corporation's quality requirements, methods of communication with suppliers, Sandia's system of rating supplier performance and other quality control problems. Engineers of Manufacturing

Engineering organizations 2530, 2540 and 2550 are on call at any time to help with production problems encountered in supplier plants across the country.

Sandia Production Experts

In a unique supplier relations office in Los Angeles, the work is concentrated in various electronic manufacturing firms. Sandians, expert in production methods and the rigorous reliability requirements of the Corporation, lend a helping hand to manufacturers with special problems. The Los Angeles office is headed by T. W. Holmes, who reports to Manufacturing Engineering Components Department 2540.

"Nuclear weapons are vastly complicated, their operation is mainly electronic, they contain thousands of operating parts and the failure of any single component might cause the failure of the entire system," Mr. Burley says.

To make certain that the possibility of failure is minimized, Sandia Field Inspectors of the 2700 organization under G. A. Parker, Jr., perform inspections in the production plants during processing and immediately prior to shipment. Sandia Field Inspection headquarters are maintained in New York, Chicago and Albuquerque to service all suppliers. An exhaustive inspection is performed after the shipment has been received. As many as 351 inspection observations are made on a relatively straightforward component which indicates the thoroughness of the inspections.

Quality Must Be Built

It is a truism that quality cannot be inspected into a product, it must be built into it. But inspection is one basic step toward better quality. C. J. McGarr, Superintendent of Sandia's production organization and responsible for production schedules, comments: "Yes, we must have quality. Shipping schedules cannot be met with an 'on-the-floor' product that fails to pass inspection. We cannot rework over 50 million dollars in product and meet our schedules."

Sandia Corporation's field representatives, manufacturing engineers and field inspectors are the day to day emissaries of quality between Sandia and its suppliers the country over. The effects of this quest for better-than-ordinary quality on the suppliers are definite.

Important too in the quality program is the contribution made by staff of buyers in 2300. "Price, delivery promises and the supplier's financial condition are factors in every purchasing contract negotiation—but all of these are considered subordinate to the question of whether or not the

supplier will provide the mandatory quality level," according to K. S. Spoon (2500), Purchasing Agent.

Suppliers Establish QC

With Sandia's assistance, suppliers are establishing their own quality control organizations which are independent of, but controlling over, production organizations in the company. Inspection and Quality Control are now major functions of plants doing sub-contract work for Sandia.

Statistical quality control techniques—designed to monitor in process manufacturing operations and promptly correct those that approach tolerance limits—are helping the suppliers produce work for Sandia.

The managers of these previously mentioned production lines of Sandia Corporation are concentrating their efforts—the object: better quality. In an atmosphere of cooperation and respect, guided by the Supplier Quality Development Committee, Sandians and suppliers work urgently with the dual, sometimes conflicting, responsibilities of meeting urgent time schedules and providing quality products.

Defense and Disaster Plan Set For Sandia Employee Families

A Defense and Disaster Plan for evacuation and reassembly of Sandia Corporation employees and their families is being developed for use in the event an evacuation of Albuquerque ever becomes necessary.

The plan now being formulated will make it possible for employees to leave the city under the direction of Civil Defense officials, quickly be placed in contact with their families, and soon reunited with them.

Reception Centers Planned

To accomplish the task of getting the more than 6,000 Sandia Corporation employees in touch with their families, personnel reception centers are being established in cities four different directions from Albuquerque. Designated as locations for these centers are Tucumcari, Socorro, Gallup and Farmington.

The reception centers will have radio and telephone communications to be used in reassembling families.

These personnel reception centers have been established in the four cities through the cooperation of interested citizenry and the city governments. All are to be located in municipal buildings.

In Gallup Dean Middleton, City Clerk, and Charles Vidal, Fire Chief, assisted in locating the per-

Southwest Sun Can Be One's Best Friend or Worst Enemy

—Health Hints by Dr. S. P. Bliss—
Sandia Corporation Medical Department



Old Sol can be both a Dr. Jeckel and a Mr. Hyde.

On one hand he can furnish the best supply of Vitamin D which will benefit mankind by improving health, and on the other hand he produces a burn that will put a person to bed and in extreme cases even cause death. Whether he performs a beneficial role or a detrimental one all depends upon how much the individual chooses to expose himself.

Sunlight comes to us in three components—visible light, ultraviolet and infra red. Each group has its own wave lengths of radiant energy and its specific action on living tissue. The ultraviolet component is the one that produces sunburn. These rays may also produce cancer of the skin. Sunburn is not only produced by the ultraviolet component of sunlight but also by man-made ultraviolet lamps.

Individual reaction to exposure to the sun's rays is especially important. Physical, glandular, inheritance and disease factors all influence the susceptibility to sunburn. Blue-eyed people, blondes and redheads are much more susceptible to the sun than are the brunettes and the dark complexioned people.

As far as glandular predisposition is concerned, sunburn occurs more frequently in women on their first day of the menstrual cycle and between the second and seventh months of pregnancy. Apparently the glandular factors influence the protective pigmentation and hardening process of the skin.

The time factor of safety depends on the skin's tenderness or toughness. An important fact for the newcomer to Albuquerque's altitude to remember is that one sunburns much faster at high altitudes.

Fog and clouds are poor protection so that one can receive a severe sunburn on cool days. Humidity at the seashore or lakeshore increases the hazard since the moisture softens the skin's external protective layers.

The sun's rays produce the most severe burn between the hours of 10 a. m. and 2 p. m.

Even chemistry has a role in sunburn. Perfumes containing oil of citron or bergamot will render the skin more susceptible.

The adage of "an ounce of prevention is worth a pound of cure" is extremely significant in the case of sunburn. Those who wish to acquire a tan should increase their exposure to the sun's rays in gradual lengthening doses. For the average adult starting at 20 minutes on the first day followed by gradual daily increases is a safe procedure.

Children should have shorter exposures since their skin can tolerate only about one half the amount of ultraviolet light that an adult can.

Protective preparations should be used until the skin is tanned. Oils are effective as are salves that contain calomine, titanium oxide or zinc oxide.