special ENROLLMENT

health care



COVERAGE EFFECTIVE AUGUST 1

YOU AND YOURS **AGAINST HIGH COST** OF MEDICAL CARE

Enrollment Period For Health Care Plan Ends July 29

As a result of recent employee inquiries, there will be a special enrollment period for the Health Care Plan which will run through July 29. Coverage will be effective August 1.

Employees whose coverage under the Health Care Plan does not include dependents will also be given the opportunity during the special enrollment period to arrange for such coverage.

Questions regarding the enrollment may be directed to supervisors or to Benefits Section (3221-1), ext. 52136 or 28263.

At Livermore Lab employees should contact Employee Service, Wage and Records Section 8212-2,

To Form Albuquerque Group of American Rocket Society

Plans are under way to form an Albuquerque Chapter of the American Rocket Society. The Society offers recognition for engineers and scientists in astronautics, rocketry and space flight.

ARS objectives are pursued through technical meetings, publications, committee activities and educational programs.

Scope of the subjects treated in these activities include propulsion, instrumentation, guidance, materials, astrophysics, space vehicle structures, hypersonic flight problems, human factors, space medicine, space law and related fields.

Membership cost is \$15 per year. Persons interested should contact Col. Walter R. Hedrick, Jr., Kirtland Air Force Base, Ext. 3221.

Sandia Corporation Librarians Hosts to Association Members

Sandia members of the Special Libraries Association played host to the organization's Rio Grande chapter during a day-long meeting last Friday.

The program, organized by Chairman Ruth Farley (3421-1), included a tour of Tech Area III facilities, the "Sphere of Science," and the Corporation's technical library, and a viewing of "The Sandia Story.'

After luncheon at the Coronado Club, Iben Browning (5223) spoke to the librarians on "Factors Related to Intelligence and Brain Operations." A business meeting

Finish Year With No Disabling Injuries

Sandia Corporation

ALBUQUERQUE, N. MEX.

LIVERMORE, CALIF.

VOL. 12, NO. 15

Published every other Friday for the employees of Sandia Corporation, contractor to the Atomic Energy Commission

JULY 22, 1960



VACATIONING in luxurious surroundings is one way Sandians enjoy their 24 days a year of paid vacation time. Lois Arnold (5111) is enjoying the

sun and pool above. Total pay during the year 1959 for vacationing employees was \$3,370,000. During 1959 Sandians took 131,700 days vacation.

Exotic Vacations or Stay-Home Vacations Are Made Both Possible and Pleasant

Throughout the entire year Sandia Corporation employees seek their recreation in all parts of the nation . . . and some in foreign

In recent weeks the Lab News has reported employees visiting Germany, Brazil and Mexico. Others have been vacationing in national parks, camping in the mountains or boating at various lakes and rivers.

Many hundreds more spend their vacation seeing the country, attending conventions in Hawaii, or just relaxing at home. Others put their time to improving their homes, building dens, constructing patios, or planting yards.

During the calendar year 1959,

on an average, 520 Sandia employees were on vacation daily.

During that year Sandia employees took 131,700 days of paid vacation. The pay for those days totaled \$3,730,900.

All employees are required to take two weeks of vacation each

Sandia Laboratory employees completed a full year without a disabling injury on Saturday, July 16, at 3:30 p.m.

This accomplishment is in addition to the all-time AEC safety record for which Sandia Laboratory received a special AEC trophy at a presentation ceremony recently.

"This accident-free year," A. B. Metzger, manager of Safety Engineering Department 3210, says, "represents the combined efforts of all employees of all levels in all organizations, since any one person could have terminated this outstanding record during the year."

While the Safety Engineering Department devotes full time to accident prevention, Plant Engineering Department 4540. Industrial Hygiene Department 3310 and Industrial Medicine Department 3320 have important responsibilities for fire prevention and

"The AEC all-time safety record and the disabling injuryfree year are outstanding accomplishments," Mr. Metzger said, "but we must not be lulled into false security. We must realize the need for caution so that we may continue to prevent suffering."

Mr. Metzger continued with a message to employees. "We have shown that we can work safely. Now it is up to each of us to prove that the safety accomplishments were not an accident."

Youth Science Museum Exhibit At Base Library

An exhibit featuring science museums for youth groups of other cities will remain on display at the Sandia Base Library through July 30.

Sponsored by the Young Explorers House of Science, a nonprofit organization aimed at promoting science education, the library display shows the benefits to youth of a permanent science museum.

The Young Explorers House of Science group is currently conducting a campaign to establish a youth science museum in Albuquerque. Chairman of the organization is James Thorsen. Dr. Alma S. Wittlin is Director.

Dave Tarbox, director of Security and Industrial Relations 3200, is chairman of the finance com-

Sandia Base library hours are from 11 a.m. to 9 p.m. during the week and from 1 to 5 p.m. on weekends and holidays. It is located in Bldg. 219.

Six thousand four hundred and sixty-five Sandia Corporation employees are protected by the Health Care Plan.

If you are eligible to participate in the Plan and have not yet enrolled you should ponder on the position you are placing yourself and your loved ones.

Sickness and accidents strike without warning, without reason, without consideration. Most of us cannot afford medical care for a costly illness or accident. Enroll in the Health Care

Plan by July 29.

Three Sandia Women Earn Honors as **Certified Professional Secretaries**

Three Sandia Laboratory secretaries have received notification that they passed the Certified Professional Secretary tests for basic knowledge of secretarial skills. They are Jo Hanna (2630), Norma Monday (5230) and Betty Pickel (4300).

The test, which is given once a year by the National Secretaries Association, covers business law, business administration, secretarial accounting, secretarial skills, secretarial procedures and human relations.

years, Jo worked four years in Purchasing, one year in Finance, and is presently secretary of Program Administration Department.

Norma came to Sandia in August 1956 and was Division 1283 secretary before assuming her present position as Instrmentation Projects Department secretary.

Secretary for the Purchasing Agent, 4300, Betty has been at Sandia almost eight years. After two years as a secretary in the research organization, she transferred to Purchasing and has been A Sandia employee for seven in that organization ever since.



SUPPLEMENTARY AGREEMENTS between Sandia Corporation and the Metal Trades Council and Office Employes International Union were signed earlier this month. Clockwise from left front: John Sitts (4511), secretary-treasurer, Metal Trades Council: Edward J. Peterson (4253), vice president, Metal Trades Council; D. S. Tarbox, director of

Security and Industrial Relations 3200: Harold Burrell (4224), president, Metal Trades Council; E. C. Peterson, manager, Labor Relations Department 3220; Edsel Gunn (4612), president, OEIU; Paul Cruz (4153) and Albert M. Mares (4362), both members of the OEIU negotiating committee. The supplementary agreements apply for one year.

Editorial Comment

Heath Care Plan Enrollment

As the Lab News goes to press, enrollments in the Health Care Plan are coming in at a steady rate.

Some 6,500 employees are now enrolled and those who have not yet taken advantage of the plan's protection are being given the opportunity to do so during the month of July. In addition, employees already enrolled may add dependency coverage at this time if they wish.

Employees desiring to join the plan may contact their division supervisors who will provide enrollment cards and explain features of the plan. Personnel of Services and Benefits Division 3122 are also available for Health Care Plan counseling. They may be reached on ext. 52136. At Livermore Lab counseling is available from Section 8212-2, ext. 2252.

Monthly cost of the plan to employees is \$2.24 for single coverage, \$12.04 for employee and one dependent and \$13.40 for employee with two or more dependents.

Sandia Corporation pays an additional \$2.80 of the monthly premium for each employee enrolled. Payments are made by payroll deduction. Coverage will start Aug. 1 for employees who enroll during this month.

A look at the Health Care Plan will show that it is designed as a comprehensive plan to cover the employee and his family against prolonged and costly illnesses as well as those recurrent but less serious cases, such as medical emergencies and acci-

The \$15,000 maximum for each insured member of the family provides exceptional protection against the catastrophe that might otherwise lead to financial ruin.

Quote Worth Note

'We in the AEC are proud that we have entrusted such an important part of our mission to an organization of people so determined to meet the highest standards of safety.

Dwight A. Ink, Assistant General Manager, U. S. Atomic Energy Commission, as he presented the AEC safety trophy to J. P. Molnar.

Heads Board of Trustees

Elliott Dopking (8232-2), a member of the Livermore Elementary School District Board for two terms, has been elected president of the Board of Trustees at its recent reorganization meeting. Elliott has served as clerk of the Board.

Liquid Hot Foot

Water skiing is a cool sport, but it has its warmer moments as Don Commons (8123-1) can verify. Following a day of skimming over the water at Frank's tract near Livermore, Don discovered unhappily that he had second degree sunburn on his feet.

Skindiving Class

A course in skin diving is being offered to interested employees at Livermore Laboratory and others in cooperation with the Livermore area Recreation District and the Radiation Lab Recreation Association pool committee. Instructions will be given at the new pool at the Lawrence Radiation Laboratory. Interested persons may contact Tom Brumleve (8141-2) for information.



Judy Abbott (2563)

Take a Memo, Please

Accidents result from a change of controllable events. They can be prevented by finding and eliminating hazards, and by cultivating a personal interest in safety.

Weddings and Engagements

Peggy Roady (2561-2) and Claude H. Isenhart of Albuquerque exchanged marriage vows on July 2. Following a wedding trip to Mexico, the couple is now at home at 1935 Madeira NE.

Peggy has worked for Sandia Corporation since March 1958.



Mrs. Isenhart Miss Adams

An August wedding is planned for Judy Adams (8233-1) and her fiance, George Damoulos, a senior in business administration at Sacramento State College. The ceremony will take place at San Ramon Valley Methodist Church in Danville, Calif.

Judy has been with Livermore Laboratory since July 1959.

Marge Dupre (3153-1) and Richard K. Rutherford of Albuquerque were married June 21 at Holy Ghost Church. After a honeymoon in Colorado Springs, the couple is now residing at 2812 Garfield SE.

Marge has been with the Corporation since last September. She is the daughter of George A. Dupre (4224).

Louraine Pittard (2631) announces her engagement and approaching marriage Aug. 20 to Gene Wilborn of Albuquerque.

Louraine has been at Sandia since June.

Sympathy

To R. B. Yoder (4131) for the death of his mother recently in San Diego, Calif.

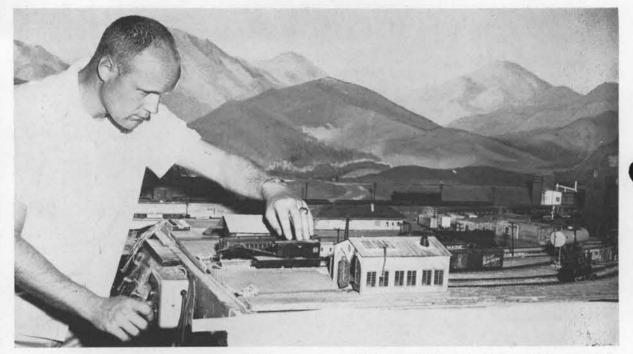
To Burl Alsup (4573) for the death of his brother recently in New Mexico.

To Glen Hastie (4573) for the death of his father recently in Texas.

To J. R. Sublett (2560) for the death of his father-in-law recently in Melrose, N. M.

To R. J. Edwards (1432) for the recent death of his wife.

To Lou and J. E. Van Meter (both 5131) for the death of his father in Mendota, Ill., July 8.



DICK DURHAM (8231-1), president of the Ala- a model train at the control tower of the society's meda County Central Railroad Society, checks out

Alameda County Central Railroad System Operated by Several Livermore Lab Men

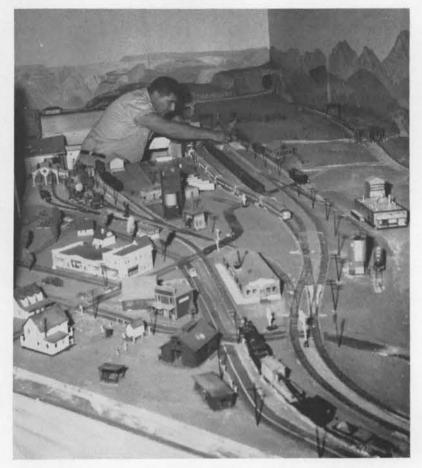
Several Livermore Laboratory "engineers" went to work on the Alameda County Central Railroad last week during the annual county fair in Pleasanton.

The railroad was an HO gauge model layout which proved to be one of the highpoints of the fair. It included model diesels, steam hauling heavy freight and passenger trains, all running through a miniature countryside serving communities with small industries, lumber mills, mines, farm areas. and a water front.

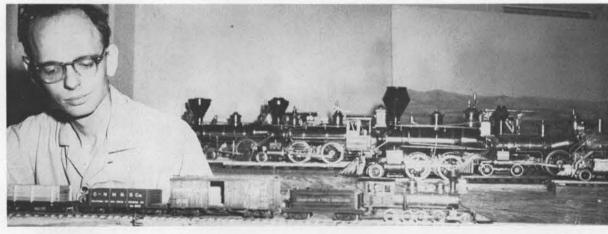
Dick Durham (8231-1), president of the Alameda County Central Railroad Society, said that the model railroad is only the beginning of what will be a miniature railroad second to none. This year marked the first public display of the model railroad, and plans call for the addition of "O' gauge trains.

The society's program included switching operations, time table running and other situations similar to the operation of the full scale trains.

Other Sandians active in the organization include Vince diLorenzo (8233-2), secretary; Ken Purchase (8213-2), treasurer; George Saling (8122-3), maintenance superintendent; Carl De-Ceasar (8234-3), HO trainmaster; L. E. Klaus (8115-2), O trainmaster; R. G. Hauff (8114-3), historian-public relations.



LILLIPUTIAN TRAIN YARD makes Carl DeCeasar (8243-3) look like a giant in the Alameda County Central Railroad Society exhibit at Alameda County Fair. Carl is a Society HO gauge trainmaster.



SCALE MODEL narrow gauge train is exhibited by its builder, Lee Klaus (8115-2) at the Alameda

County Fair. The train includes a model of an SP box car, a first place national winner.

Visit Tidal Wave Area

A visit to Hilo shortly after the recent disastrous tidal wave was a highlight of a three week vacation to the Hawaiian Islands taken by Helen Smith (4400), Doris Kokkes (4431-1) and their fam-

Helen and her daughter climbed a newly-formed volcano. The volcanic ash was still so hot that Helen received a slight burn on her foot.

Foreign Students

Thelma Carpenter (4423-1) and Margaret Sanders (4423-3) entertained Geetrjie Suhr of Germany and Kirstin Bording of Denmark in their homes during the recent visit of foreign exchange students to Albuquer-



ALBUQUERQUE, N. MEX.

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Construction to Start

Hollingsworth Closes Last Valley Hospital Drive Meet

"The people of the valley have literally saved the project," Lee Hollingsworth (8120) has told the final official report meeting of the Valley Memorial Hospital fund drive.

Mr. Hollingsworth, who is vice president of the hospital directors, presided at the closing meeting of the hospital's supplementary fund campaign.

Though the second campaign was short of its \$225,000 goal, sufficient funds were collected to enable the directors to complete the two-story, 46 bed hospital.

"By response to the re-pledge appeal, the people of the valley have guaranteed the construction and equipping of their hospital," he said. The meeting at which Mr. Hollingsworth presided climaxed the two-year effort to assure construction of a non-profit community hospital.

Estimated opening date for the hospital is September 1961.

Call Put Out to Livermore Bowlers For Fall Leagues

Livermore Laboratory employees interested in joining fall bowling leagues should contact Jack Bonetti (8212-2) as soon as possible so that additional lanes may be reserved.

Interested employees may sign us as individuals or as members of a team, Jack said. Fishing Expedition For Kids Turns Into Ornithology Lesson

Lou Guintard (8116-2), accompanied by his two sons and the fourth grade science club of Alisal Elementary School in Pleasanton, spent the day recently at Moss Beach, near San Francisco, collecting marine life for class display.

At home later in Lou's kitchen they cooked the specimens before mounting them. The water boiled over, covering the stove with a variety of sea life. Moving the mess outside the odor attracted hordes of buzzards, giving the kids a first hand look at the behavior of the predatory birds.

Patent Granted to Dean K. Yearout

A patent, assigned to the Atomic Energy Commission, has been awarded Dean K. Yearout (1422-1) and Harvey L. Jergins (a former Sandian) for their invention of a dual-ridge antenna.

The invention provides a miniature antenna capable of transmitting and receiving radar signals.

Most of Mr. Yearout's work has been in radar design and development during his nine and a half years with Sandia Corpiration. He holds a BS degree in electrical engineering from the University of New Mexico.



SANDIA LAB MOTOR POOL was the scene recently of a demonstration of compact, economytype automobiles, station wagons and light trucks. In the foreground, R. D. Flaxbart (4570), center, looks under the hood of one of the small cars. At

far right is S. D. Brooks (4573). The demonstration was jointly sponsored by the Atomic Energy Commission, General Services Administration and automobile manufacturers to exhibit suitability of compact vehicles for use as government vehicles.

Sandia's TDP Makes Appearance in Deepest Jungles South of Border

What a small world it is when word of Sandia Corporation's Technical Development Program pops up in the interior of Mexi-

H. E. Lenander, director of Electromechanical Component Development, had such an experience while on a recent trip to Mexico with his wife and two children.

The Lenanders had stopped at a small hotel on the outskirts of Tamazunchale (better known to gringos as "Thomas and Charlie") about halfway between Mexico City and Monterrey, in deep jungle area.

In the evening they visited with a couple from Michigan also staying at the hotel. The wife spoke very highly of an Albuquerque firm which had employed the grandson of their neighbor in Muskegan. "In fact," she said, "the company helps him go to college"."

That was the only clue Mr. Lenander needed. The firm, of course, was Sandia Corporation and the grandson was Clayton L. Mavis (2742-2), a recent graduate of Michigan State University in the

pilot group of the Technical Development Program.

Coronado Club Offers Dinner-Dance, Movies For Members, Guests

Coronado Club activities for the remainder of July include the monthly buffet dinner-dance, Family Night, and a Friday night

George Davies' orchestra will play for the buffet dinner-dance which starts at 6 p.m. on Saturday, July 30. Cost is \$2.60 for members, \$3.60 for guests.

A Ma and Pa Kettle movie will be featured for Family Night, Sunday, July 31. Free cokes and popcorn will be served during the movie which starts at 6.

Following social hour and the buffet tonight, Lloyd Pond will play for dancing from 8-12. Cost is 50 cents for members, \$1 for guests. Next Friday, July 29, Al Hamilton will play for social hour from 4:15 to 6:15 p.m. The regular Friday night buffet, which costs \$1.60 per person, will be served from 6 to 7:30 p.m.

Homedome structure

Geodesic Den Is Miniature Sandia Sphere of Science

Construction of Sandia Laboratory's "Sphere of Science" has fascinated many sidewalk superintendents. Imagine the surprise of Frank Taylor's neighbors when something similar took place in his backyard.

Frank, who works in Supervisory Development Section 3131-1, decided he needed a den and a place to install his hi-fi equipment. He heard about a commercially available geodesic dome which came in kit form and could be easily erected.

After the concrete slab foundation was poured, it took five men (including Frank) six hours to fasten the sections into final form. Frank needed an additional day to caulk the seams with a plastic flashing and another day to paint.

The finished dome has 485 sq. ft. of floor space and the ceiling is 12 ft. at its highest point.

The triangular space frames are exterior grade plywood covered with plastic. Four translucent skylights on the north side provide daylight in addition to the end panels which contain windows as well as a door.

Frank has applied acoustical plastic to the ceiling and will eventually panel the bottom half of the dome with ash plywood over the Fiberglas insulation material.

Vinyl tile has been placed over the concerte foundation, a forced air heating unit is ready for Fall use, and a modernistic metal fireplace provides atmosphere.

"We've already held one dance in the dome," Frank said, "and it has more room than we anticipat-

An unexpected feature, which is delighting the Taylor children, is the sudden appearance of a flock of pigeons who have adopted the sphere. It seems that pigeons just like the shape.

Sunken Treasure Search Not Slowed by Sharks, Barracuda

Don Knudsen (8123-3), Livermore Laboratory's candidate for the Explorer's Club, returned to his job as a photo technician last week filled with tales. His experiences were of lost cities of gold, and photographic proof of the treasures to be found in the waters off the coast of Yucatan.

The young adventurer spent three weeks as official photographer for the Middle American Archaeological Society on an expedition to the Yucatan Peninsula in search of sunken treasures.

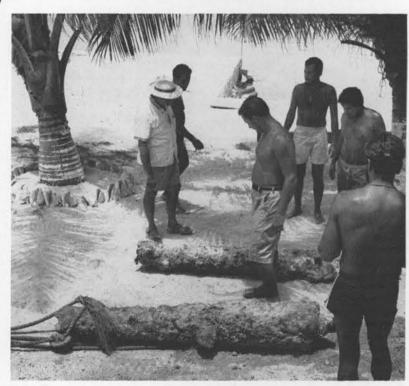
Don was sun-tanned and muscle-toned from the trip, during which he shot thousands of feet of movie film of the underwater "diggings." He now spins fabulous tales of lost civilizations in the jungles, man-eating sharks and ancient Spanish wrecks under the waters of the Gulf of Mexico.

"We discovered a 'new' wreck dating back to the 16th century in ten feet of water near a coral reef off the shore of the Isla Mujeres, "island of women," from which we raised two cannon and a huge anchor," he said. "Three sharks watched us for a time but left without incident. Only once were we really scared when we sighted an eight-foot barracuda, but luckily he didn't give us any trouble."

Don, accompanied by three other members of the Middle Atlantic Archaeological Society, journeyed into Mexico in a reconditioned utility truck.

On the way to the site the group visited several ancient Mayan temples in jungles of Yucatan and included the ruins in their motion picture story of the expedition.

Films of the trip will be shown to Sandia employees at Livermore Laboratory some time in the future, Don said, adding that it will take him a while to edit the film for presentation. Announcement of the film showing will be made on the Livermore Laboratory bulletin boards.



CORAL ENCRUSTED CANNONS were recovered from new wrecks located near the site of earlier explorations off the coast of Yucatan. This photo and the others were taken by Don Knudsen (8123-3) who acted as official photographer for the expedition.



DON KNUDSEN (8123-3), second from left, and other members of the Middle American Archaeology Society check their route just before departure from California to the coast of Yucatan, Mexico. Behind them is the truck used for most of the trip.



SUPPLIER REPRESENTATIVES confer with E. L. Bolton (4361), right, Buyer, Supplies Electrical and Mechanical, in the Supplier Relations area of the lobby of Bldg. 800. The suppliers are George Hatchett, left, and Richard Mayes who regularly visit Sandia.

Supplier Relations Welcome Goes Out To Hundreds of Visitors Each Month

Sandia Corporation regularly does business with some 6500 firms throughout the country. During an average month about 325 representatives of these and other firms call on Sandia.

Seeing that supplier representatives meet with interested Sandia personnel and are able to conduct their business promptly and efficiently is the job of Supplier Relations and Evaluation Section 4332-1, headed by R. D. Freyermuth in Albuquerque and Travel and Clerical Section 8211-3, Livermore, which is headed by J. E. Miller.

The recently remodeled lobby serves as a meeting place for supplier representatives and buyers of Sandia's purchasing organization. The Albuquerque lobby area also includes five semi-private conference rooms and a larger display room for use by suppliers. At Livermore Laboratory there are four conference rooms. All contact between suppliers and Sandia Corporation personnel is through a Sandia buyer.

Staff Lobby

A. K. Wheeler and Maxine Metz staff the Supplier Relations Office in the lobby of Bldg. 800 and greet the suppliers as they arrive. Maxine also serves as Corporation receptionist at Albuquerque. Nancy Tompkinson (8211-3) greets suppliers at Livermore.

A supplier relations representative keeps a complete listing of Sandia buyers and their areas of procurement interest. This list comes in handy when a new supplier calls on Sandia and purchasing agents need to arrange a meeting for the man. They contact the appropriate buyer interested in the types of items that the supplier is selling. Conferences are arranged at the invitation of the buyer.

The purpose of most supplier

visits is to acquaint Sandia buyers with new items offered for sale. Suppliers describe their product and usually leave brochures and catalogs for distribution throughout the Laboratory and for reference purposes.

On occasion, conferences are also held in the buyer's or purchasing agent's offices in a restricted area. Supplier Relations personnel arrange for the representatives to be escorted into the area and issue identifying badges.

Local Callers

Many suppliers who regularly call on Sandia are representatives of local and state firms. Sandia placed \$11 million in orders with New Mexico suppliers in 1959. Sandia does business with 396 firms in New Mexico and all but 40 are located in Albuquerque.

In Livermore, Sandia last year placed 9000 purchase orders totaling \$7,485,000 with firms located mostly in the Bay area.

In its Albuquerque location in the front of Sandia's administration building, Supplier Relations is constantly called upon to direct visitors, answer questions, locate personnel and at various times give service a little beyond the call of duty. For instance, one fastidious supplier visitor asked Maxine to sew a button on his coat. She did. On many occasions she has made arrangements for transportation, flight reservations and hotel accommodations.

The motto of Supplier Relations "service." Its personnel provide the initial contact that helps foster the first of Sandia's purchasing policies. This is "to maintain supplier relationships based on mutual respect and confidence, to deal fairly and without favoritism in the allocation of business, and to recognize constructive suggestions.'



DIVISION II CHAMPIONS of the Sandia Lab Handicap League is the Roberson Homes team shown above. In the first row are (1 to r) John Nakayama (1215), Neal Nelson (1217), John Pupelis (4412) and Jof Myers (1217). In the top row are Wally Hansen (4412), Roy Ewing (4412) and Harvey Thiermann (4412). The team defeated nine others in the league. Team average was 805.



SALESMAN Walter W. Scott (right) of the Recordak Corporation discusses one of his company's products with Alden J. Derby (left), super-

visor of Livermore Laboratory's Commercial Section (8211-2), and John E. Miller (8211-3). The supplier relations staff averages 300 contacts each month.



PRODUCT DISPLAY is arranged in one of the conference rooms adjacent to the lobby of Bldg. 800. Above supplier Dick Freeborg, left, demonstrates instrumentation cameras to E. J. Dadian (4361-3), center, and W. R. Rosenburg, assistant purchasing agent 4360.



GREETING a supplier at Sandia's Supplier Relations desk in the lobby of Bldg. 800 are Maxine Metz and A. K. Wheeler.

'Fun' Competition For Sports Car Club

The Albuquerque Sports Car Club will stage a "Hare and Hound" rally Sunday, July 24, at 1 p.m. Drivers will meet at 725 Wyoming NE.

According to Jim Gillis (4413-3) this is a "fun" type of competition, high speed or navigation ability are not required. Trophies will be awarded.

Any kind of sports car may be entered. For further information call Jim at ext. 32141.

Sick List

Wishes for a speedy recovery go to Orlando Moore (8121-2) who was recently hospitalized after a three week illness at home.

Friends and co-workers send best wishes to Ione Pierson (5142-1), who is convalescing following recent surgery.

New Homes

Imogene Kelly (8212-1) and her family have moved into their new home at 5686 Victoria Lane,

Alice (1431) and Joe Woodley (2715) have moved into a new home at 605 Georgia SE.

Retirement August 1 Won't Stop Activities Of S. A. McCollum

S. A. McCollum (5244) will retire Aug. 1 after nearly 12 years at Sandia Laboratory, but a nor-

mal day will hardly be time enough for him to enjoy his many hobbies and special interests.

Mr. McCollum first visited Sandia Base on a tour with



a group of mechanical engineering students from the University of Wyoming, where he was an assistant professor. Soon afterwards he joined the laboratory and took charge of a branch shop at the West Lab. He was in the Pacific on the Greenhouse program and

"I think I have been on enough programs at Las Vegas to see at least 40 atom blasts." Mr. McCollum was also responsible for setting up Sandia's machine shops at White Sands, Cape Canaveral and Point Mugu, California.

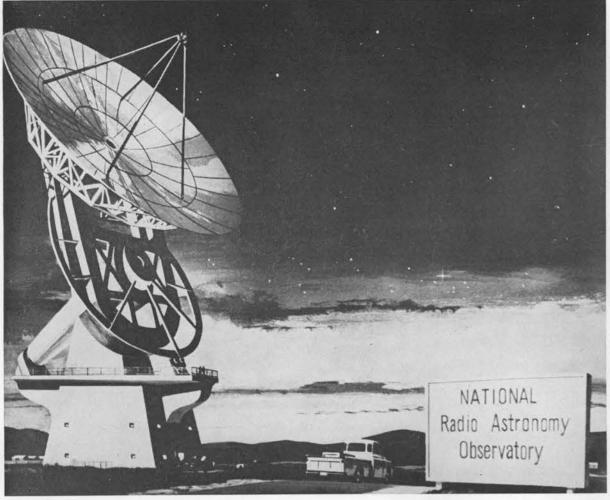
During World War II Mr. Mc-Collum worked for the Applied Physics Laboratory, Johns Hopkins University, on the proximity fuse, the most secret project until the atom bomb, and in 1944 he worked on the first ram jet type missile called the Bumble Bee, forerunner of the Talos. He holds a patent on a burner invented for the ram jet missile.

After retirement Mr. McCollum plans to devote more time to his hobbies of collecting guns, making small model cannons, painting, sculpturing, and traveling.

The McCollums live at 10005 Menaul NE and have five grown children, one of whom is Pat Snider (2632).

Welcome Newcomers

July 1-15	
Albuquerque Bruce H. Krueger Frank O. Law, Jr.	
Connecticut Bertram H. Du Mars, Ridgefield	4224
Indiana Donald F. Anderson, Valparaiso	2440
Michigan Kenneth D. Nokes, East Lansing	2451
Missouri Ralph H. Kotoski, St. Louis Roger P. Roberts, Tarkio	2451 1432
New York Ronald M. Oelsner, Alfred	2451 5133 2544 2561
North Dakota Paul A. Stokes, Fargo	
Oregon Donald E. Amos, Corvallis John W. Keizur, Corvallis	5120 5132
Pennsylvania Richard E. Ashbaugh, McKeesport Alan D. Bridegam, Reading Gustav E. Lachman, Jr., Reading Philip Loeper, Reading Joseph J. Rodzewich, Freeland Richard E. Thompson, Hazelton Walter A. Von Riesenmann, New Kensington	2451 4412 4413 4412 4412 4412
Utah Doyle K. Morgan, Salt Lake City	
Virginia Kenneth H. Miller, Waynesboro C. Ballard Pierce, Richmond Frederick E. Wetzel, Charlottesville	2442 5150
Temporary Summer Hire *Clarence C. Fischer	3464
* Denotes rehired	



ARTIST'S CONCEPTION of the 140-foot radio telescope now under construction at the National Radio Astronomy Observatory. The giant instru-

ment, which will have a total moving mass of 2000 tons, will be able to probe considerably deeper into space than the 85-ft. Ozma telescope.

Astronomers Making Systematic Search for Intelligent Life Located on Other Worlds

Astronomers have embarked upon the first systematic search for intelligent life on other worlds using as a means radio astronomy, a science that had its beginnings in the studies of a Bell Laboratories communications engineer.

The quest is taking place in the hills of West Virginia. There, the National Radio Astronomy Observatory is pointing a delicate, 85foot radio telescope at the stars, listening for a signal which will indicate the presence of other intelligence in the universe.

Regardless of the experiment's outcome, the world of science will always remember the man who made it possible: Bell Laboratories' Karl G. Jansky. The year was 1928 and Jansky was given an assignment at the Laboratories' Holmdel, N. J., site: find the source of the noise that was interfering with the recently-opened transatlantic radiotelephone service.

Using a large rotating antenna, Jansky, by 1932, had pinned down lightning flashes as the chief culprit. But his sensitive equipment also detected a peculiar hissing coming from the center of the Milky Way Galaxy. Later this hissing was identified as the radio signals generated by natural processes in stars and galaxies.

Radio astronomy—the study of the heavens by listening to radio waves instead of looking through an optical telescope - had been discovered.

If Jansky could have looked ahead to 1960, he would see his discovery being used at Green Bank, W. Va., as the core of a National Science Foundation experiment called Project Ozma, after the Queen of the mythical land of Oz.

At Ozma's outset, a radio telescope is listening for a message from two relatively nearby stars: Tau Ceti and Epsilon Eridani. These stars, 11 light years (66 trillion miles) from Earth, may have planets capable of supporting life astronomers say (To back up their statement, the scientists cite recently-acquired knowledge about the evolution of stars which



RADIO NOISE which eminated from the Milky Way in the early thirties is positioned by the late Karl Jansky. Mr. Jansky discovered the noise while researching at Bell Laboratories' Holmdel, N.J., site.

leads many to believe that there Sandia - Los Alamos ets in the heavens.)

The Foundation has suggested the eagerly-awaited message would be "simple and of some universal recognizability . . for example . . a series of uniformly patterned pulses or a series of prime numbers."

The Observatory is adding new facilities to expand the experiment, and radio astronomy in general. A 140-foot radio telescope now under construction will probe deeper into space. A modernistic laboratory, opened last October, will furnish completely equipped research labs for astronomers to analyze results of the electronic space probes.

The lab is a living tribute to radio astronomy's father as the Observatory has named the new building the "Karl G. Jansky Laboratory." It is another example of communication research offering the means for man to better understand himself, and, in this case, perhaps his neighbors in deep space.

Golf Tournament To Be Played Aug. 6

Sandia Laboratory Golf Association will be host for a tournament between Sandia and Los Alamos golfers Saturday, Aug 6. The situation will be reversed when Los Alamos will host a tournament Sept. 17.

The Sandia tourney will be played on Los Altos course beginning at 9:30 a.m. A swimming party for entrants is scheduled at the Coronado Club pools at 5 p.m. Refreshments, a chuck wagon dinner and dancing will follow.

Fee for both tournaments and a similar social program at Los Alamos is \$12 for single entrant, \$14 for entrant and wife.

Entry blanks and additional information are available from either C. C. Fornero (3153), tournament chairman, ext. 36259, or George Banos (3122), ext. 29157.



LAB NEWS

SANDIA LAB HANDICAP LEAGUE CHAMPIONS, Division I, are shown above. From left are: Bill Johnson (1613), Art Aube (1611), Chuck Remaley (1613), Earle Bosken (1611)), Andy Anderson (1614) and Curt Warthen (1614). Not shown is Bill Hanlin (1611). The team sponsored by Sowell Pharmacy, defeated the Roberson team, champs of Division II, in final playoffs recently.



CELEBRATING victory of 4100-4300 in the Sandia Lab American softball league are three top players of the team above. The champs had the crown sewed up early last week when the record stood at 15 won and two lost. Second place 5200-5300 trailed by three games. From left are co-manager Bob Gevirtzman, comanager and pitcher Frank Lucero, second-baseman Bob Guerrero.

Softball Championship Safely in Hands of 4100-4300 Team Members

From an early lead that never slackened throughout the season. 4100-4300 wrapped up the championship of Sandia Lab's American softball league last night.

Sparked by the consistent playing of Frank Lucero, Bob Guerrero and Bob Gevirtzman, 4100-4300 suffered only two losses the entire season. Both of these defeats were by a single run.

The championship was sewed up early last week when the league leader's record stood at 15 won and two lost. Only two games remained to be played and second place 5200-5300 was trailing by three games as the Lab News went

Top pitcher in the League, Frank Lucero, was a big part of

4100-4300's victories. His own record of 12 wins and one loss was the best in the league.

Co-manager of the team, Bob Guerrero, covered second base and was a consistent hitter throughout the season. Bob Gevirtzman, comanager, held down first base and did more than his share with the

These three organized the team and kept enthusiasm high.

Other team members include Al Kaping, pitcher, Ernie Chaves and J. L. Pecos, catchers. Infielders are Lewis Sisneros, Frank Duggin, Sam Gaeto, Jack Reyolds and Bob Banks. In the outfield were Joe Costales, Chuck Newman, Don Hinnan, Frank Comiskey, Wally Smith and Jim

55,000 Boys-all in one spot

Sandia Scouters Taking Boys To 1960 National Jamboree

LAB NEWS

As dawn broke over the rolling hills north of Colorado Springs this morning, 75 Albuquerque boys and four Sandia Corporation employees were among the thousands crawling out of the two-man tents staked out row after row.

The occasion, of course, is the 50th National Boy Scout Jamboree from July 22 through 28. During the week some 55,000 youngsters and their adult leaders from every state and many foreign countries will enjoy the experience of camping out.

E. L. Bolton (4361) will serve as scoutmaster and J. T. Brown (5513) as assistant scoutmaster of Troop 78; R. H. Carlson (5512) will be scoutmaster and R. D. Brooks (5331), assistant scoutmaster, of Troop 79. The two troops are comprised of boys from the various patrols in Albuquer-

The Albuquerque troops left last Tuesday by chartered bus and will return on July 29. In addition to attending the jamboree, the youngsters will make a side trip to Denver to visit the Museum of Natural History and tour the U.S. Mint. On the return trip they will go through the CF&I steel mill at Pueblo. A visit to the Air Force Academy, located directly west of the jamboree camp site, is also planned.

"The recent tornado which touched down at the Philmont scout camp upset our plans," Bob Brooks noted. "The same scouts making the jamboree trip were

Softball Tournament Starts July 25 for 13 League Teams

As the softball season closes this week, the 13 teams in Sandia Lab's American and National Leagues were getting geared for the single elimination softball tournament which will begin July

First game will be played on Sandia Base Diamond D at 6:30 p.m. Second game will start at 8:15

Some 260 Sandians, members of the softball teams, are expected to participate in the tourney.

A second tournament, Sandia Base Invitational Softball Tournament, will be played between all-stars of Sandia Laboratory, Sandia Base, KAFB and Manzano Base beginning Aug. 8.

Sandia Lab's all-stars are being chosen now and will be announced in the next issue of the Lab News.

Congratulations

Mr. and Mrs. Wendell D. Weart (5112) a son, Craig Michael, on

Mr. and Mrs. Conrado A. Otero (3466-1) a son, Anthony, on July

Mr. and Mrs. E. C. (3220) a daughter, Lorri Anne, on July 10.

Mr. and Mrs. Granville Dourte (4231) a son, Richard Harley, on July 6. Mr. and Mrs. Art Knowles

(8116-4) a son, Keven Arthur, on July 2.

Mr. and Mrs. Tom Meagher (8121-2) a daughter, Katherine, on June 19.

Mr. and Mrs. R. E. Smith (5112) a daughter, Cristall Helen, on July 10.

Mr. and Mrs. Leo E. Paxton (4253-2) a son, Leo Eugene, on July 10.

Mr. and Mrs. Steve Drago (2644-3) a daughter, Denise Marie, on July 2.

Mr. and Mrs. G. Lawrence Lane (5242-2) a son, Michael Kevin, on July 12.

Mr. and Mrs. Arthur R. Engquist (1431) a son, Ronald Elmer, on July 8.

Mr. and Mrs. John E. Northrup (1431) a son, Mark Ryan, on July

there and all our tents were destroyed in addition to much of our cooking equipment."

Food is included in the jamboree fee and menus are furnished but each individual patrol (there are four patrols in a troop) cooks its own meals on charcoal stoves.

"Ham" radio operators in Albuquerque, including members of the Caravan Club, Sandia Base Radio Club, and New Mexico CW Net, will cooperate in establishing contact between parents and sons attending the jamboree.

According to Tom Marshall (5222), the scouts will make the initial contact through the amateur radio station (WOBSA) at the camp site. The amateur radio operator in Albuquerque who picks up the call will contact the parent by telephone and tie in the calls.



DORIS M. 17-foot cabin cruiser, was built by Sandia's Jim Harrison in his spare time-in his

garage. Builder Jim estimates it took 1500 manhours to construct the boat from ordered blueprints.

Supervisory Appointments

LUKE F. STRAVASNIK to supervisor of Evaluation and Test Section 1224-3, Engineering Department.

sion 1633.

Luke has been mechanical engineer at Sandia four years, working in systems development organizations and in Experimental Reactor Di-

Previously he worked five years as chief engineer of a firm in Buffalo, N.Y., designing and developing automatic machinery for manufacturing specialty and novelty items. Luke was also a year with National Supply Company in New Orleans, an oil field supplier.

He received his Bachelor's degree in mechanical engineering from Tulane University and has taken some graduate work at Tulane and the University of New Mexico.

During World War II Luke served three years in the Navy.

He is a registered professional engineer in New Mexico.

JOHN B. ADAMS to supervisor of Planning, Records and Inspection Section 8221-1, Plant Services Depart-



ment. John has been with Livermore Laboratory since April 1957 as a design engineer in the Plant Engi-

Divi-

neering

sion.

Before joining Sandia he worked about seven years for the architect-engineering firm of Keller and Gannon in San Francisco, where he was assigned to work on contracts with Lawrence Radiation Laboratory including the Heavy Ion Accelerator Building in

John attended Kansas State College, the University of Kansas, and studied part-time at the University of California, before receiving his engineering degree from San Jose State in California.

He is a member of the Colorado Society of Engineers.

Club Wives Invited

All wives of Coronado Club members are invited to attend a punch party given by the Sanado Club Tuesday, Aug. 2, from 2-4 p.m. at the club.

Featured at the social event will be a display of items completed by Sanado Club members in the many special interest groups.

Reservations may be made with Mrs. J. E. Fesler, AX 9-1020, before July 28.

CHARLES F. MUEHLENWEG to supervisor of Design Section 5134-1, Physical Research Support Division.



Charlie initially came to Sandia in 1951 as a design engineer in the Mechanical Division and advanced to division head. He left the Cor-

poration in September 1956 to become an associate engineer for IBM Research Labs in San Jose, Calif. Two years later Charlie returned to Sandia to work in the Applied Science Division.

Previously he worked three years as a design engineer for Westinghouse Electric Corporation in East Pittsburgh, Pa., and Newark, N. J.

He holds a Bachelor's degree in mechanical engineering from Oklahoma State University and a MS degree from Stevens Institute of Technology. He has taken some graduate work in engineering mechanics at Stanford University.

Charlie is a member of the American Society of Mechanical Engineers, Kappa Mu Epsilon, mathematics honorary, and Sigma Tau, engineering honorary,

During World War II he served four years in the Marines as a transport pilot and flight instruc-

Promotions

Walter L. Nufer, Jr. (1225) to Staff Associate Don V. Tassano (8223) to Technician Betty D. Wilson (8212) to Typist Clerk Wilda F. Hill (8212) to Steno Clerk George Hosoda (8121) to Staff Assistant David M. Abrahams (8121) to Staff Assistant Ralph T. McRae (4411) to Staff Associate— Designer

Marston W. Skidmore (4411) to Staff Associate
—Designer Designer
Louis C. Fair (4411) to Staff Associate—

Marston W. Skidmore (4411) to Staff Associate
—Designer
Louis C. Fair (4411) to Staff Associate—
Designer
Billy D. Thompson (4511) to Electrician
John W. Windsor (3464) to Document Clerk
Jean M. Schuster (3126) to Report Clerk
Alice S. Segrist (3126) to Secretarial Steno
Margaret A. K. Dodds (3126) to Record Clerk
Marjorie A. Geisler (3126) to Typist
Mary L. Hauer (3126) to Record Clerk
J. E. Berkanstock (3126) to Secretarial Steno
Edna O. Harper (3126) to Secretarial Steno
Edna O. Harper (3126) to Secretarial Typist
Carolyn F. Cranfill (3421) to Library Assistant
Jean K. Burke (3461) to Document Clerk
Reba Jo Griffiths (3464) to Message Center
Equip. Optr.
James J. Ryan (3466) to Repro. Service Clerk
V. N. Sullivan (3421) to Library Assistant
Lovella L. Montova (3423) to Typist
Jean P. Naughton (3421) to Librarian
James M. Austin (8222) to Helper Trades
James A. Mount (8232) to Pressman
Stanley Glasky, Jr. (8223) to Model &
Instrument Maker
Karen D. Lucas (8212) to Steno Clerk
Judith A. Adams (8212) to Steno Clerk
Judith A. Adams (8212) to Secretarial Steno
Jack W. Choate (3464) to Camera Operator
H. Dorothy Mohart (3131) to Personnel Clerk
M. Amy Gonzales (1261) to Staff Assistant
Sondra L. Markham (3461) to Document Clerk
Supervisory Lateral Transfers
E. D. Holbrook from 8123-3 to 8123-3
R. A. Dawirs from 1262-1 to 8121-3
H. L. O'Dell from 8121-3 to 8123-3
R. A. Dawirs from 1262-1 to 4361-4
J. L. Dossey from 1262-1 to 1262-1
D. M. Lucas from 4364-2 to 4362-1
Q. L. Vandi from 4361-4 to 4364-2
E. V. Forsman from 1311-1 to 1323-1
F. D. Hess from 1311-2 to 1323-2
R. D. Wehrle from 1311 to 1323-1
F. D. Hess from 3423-1 to 4344-2
E. V. Forsman from 1311-1 to 1323-1
F. D. Hess from 5256-1 to 4234-2
W. H. Everhart from 5256-1 to 5253-1
W. Male from 5256-1 to 5253-1



HIGH AND HANDSOME sits Jim Harrison's do-it-yourself project, the Doris M. Here she floats on Elephant Butte Lake, but has seen service in the Gulf of California off the coast of Mexico.

3000 Wood Screws Hold Together Home Made 17-foot Cabin Cruiser

The "Doris M" is a sparkling blue and white 17-ft. cabin cruiser. She sits high and handsome in the water drawing less than eight inches. With her 35 hp outboard motor going full throttle, her keel comes up out of the water about 20 degrees and she can hit 23 mph easily.

In addition to her beautiful lines and snappy performance, the thing that is unique is that the Doris M was constructed in the garage by J. R. "Jim" Harrison. Jim, who is supervisor of Component Evaluation Division 5523, spent evenings and weekends the past year and a half building the craft. He estimates that he put in some 1500 man hours hand shaping the beautiful lines of the boat. The frame is constructed of mahogany covered with 3/8-inch marine plywood.

Building Fun

about for the fun of building" than with any idea of using the boat, Jim says. His hobby has long been woodworking and when his

Illinois 'U' Alumni Meeting Sept. 24

A University of Illinois alumni club has been established in Albuquerque with plans well underway for a fall dinner meeting.

At an initial meeting of the group attended by 30 enthusiastic Illini boosters, a steering committee was set up which includes Sandians John Colp (1631-1), Al Hachigian (5313) and John Buyers (5331).

The fall meeting will be held Saturday, Sept. 24, at the Alvarado Hotel with Col Wilfred McCormick serving as toastmas-

Further information about the alumni club may be obtained from any member of the steering committee.

home became overflowing with furniture, cabinets and other pieces of his handiwork he began looking for something else to build.

An advertisement in a sporting magazine caught his eye and he sent off for the plans of a boat. From these blueprints, he drew full scale patterns using large sheets of brown paper spread out on his garage floor. From then on, the project was just hard work.

His power tools were handy for shaping the rough outlines of the boat but due to the many angles and curves of the hull, deck and cabin, most of the pieces had to be painstakingly shaped by hand. One power tool that became indispensable was an electric screwdriver. Nearly 3000 screws are in the Doris M.

She was launched last April at Elephant Butte Lake. It was the first time Jim had ever driven a boat.

"It took some time to get used to the feel," he says. "The control is quite different as the speed increases. I was quite pleased when the boat required no rework."

Mexican Waters Cruise After two weekends at Ele-

phant Butte, Jim and three other Sandians-Chet Fornero (3155), Howard Lindell (2441) and Leon Wiley (5532)-took the Doris M to Guaymas, Mexico, for four days of fishing in the Gulf of California.

"The boat handled fine," Jim says, "and we caught more fish than we knew what to do with."

Since this time Jim has become an enthusiastic skipper. He takes the Doris M out every chance he gets. His wife, the real-life Doris M., is also enthusiastic about boating and fishing.

Understandably enough, Jim hasn't built anything in his workshop since April.





Julian S. Torrez 2232 July 25, 1950



Chester O. Weaver 1332 July 25, 1950



Lloyd E. Barnes 2621 July 28, 1950



Robert L. Eisele 8114 July 28, 1950 David H. Winner 3242 July 28, 1950



John W. Ethridge 3242 July 31, 1950



T. T. Robertson 4400 Aug. 1, 1950



Paul Syroid 1284 Aug. 2, 1950



Donald G. Lewis 2713 Aug. 3, 1950



John E. Parker 5211 Aug. 3, 1950



Rudy L. Baca 2643 Aug. 4, 1950

Five Year Pins

July 22-Aug. 4

Donald N. Munro 1232, Willie L. Smith 4511, George Banos 3122, Bruce L. Barth 5143, Mary W. Clay 2621, Harold H. Coe 1224, James M. Haines 4254, T. J. Jorgensen 4321, Carl F. Lundbom, Jr. 8116, Giles M. Reed 8152, Jacob Sandoval 4233, Helen P. Agats 4233 and Mary J. Yager 3121.

Transformer Patent Granted to AEC for R. H. Opperman

A patent on a transformer for joining unbalanced and balanced transmission means has been assigned to the AEC in the name of Raymond H. Opperman (1411) and B. J. Bittner (formerly of Sandia).

The invention transforms the signal by an increasing electrical decentralization of the inner conductor of the unbalanced transmission means until the signal is concentrated between the electrically closest portions of the inner conductor and the outer conductor systems.

At this point the signal is no longer in coaxial form - instead the electrical lines of force are nearly in the transverse form. Once the latter is established, a balanced transmission means can be connected at that point so as to receive the transmitted signal.

The length of the transformer can be less than a quarter wave length of the lowest frequency signal transmitted.

Mr. Opperman has been with Sandia Laboratory since June 1949, except for a year when he was on leave of absence to complete work for his Master's degree in physics at the University of New Mexico. His Bachelor's degree was also from UNM. Since 1956 he has worked in Electronic Devices Department 1410.

One Less Bachelor

Best wishes are extended to Hal Norris (8121-2) on his forthcoming marriage to Glenny Ely. The ceremony will be Aug. 27 in Beaverton, Ore. Hal has been with Sandia Corporation for a year.

Three Sandia Laboratory Projects Apparent low bidders for several construction projects at Sandia Laboratory have been announced by the AEC. Styron Construction Company's

AEC Announces Low Bidders for

LAB NEWS

bid of \$27,000 is apparently low for the Phase II modification of Bldg. 808. Included in the project is installation of new partitions, two soundproof rooms, relocation of existing equipment and concrete and masonry work.

JULY 22, 1960

Work is to be completed within 60 days after the contractor receives notice to proceed from the AEC. The project was designed by Plant Engineering Department 4540. Vernon Kerr (4543-3) is project engineer.

The modified space in Bldg. 808 will be used for several projects of Physical Research Department

Marco Construction Company of Albuquerque is apparent low bidder for construction of a prefabricated steel building in Area "Y" located between Coyote Test Field and Area III. The structure will be designated Bldg. 9926 and will be used by Physical Research Department 5130 as a laboratory and shop to support explosive to electric transducer studies.

The firm's bid was \$24,700. The project includes concrete work and installation of utilities. Work is to be completed within 80 days after the contractor receives notice to proceed from the AEC.

M. B. Moore (4543-2) is Plant Engineering Department project engineer.

Bill Stuckman Construction Company is apparent low bidder for the installation of 12-ft, centrifuge in Bldg. 860. The project will consist of setting in place government-furnished equipment and related construction including mechanical and electrical work in the high bay area of Bldg. 860. Included in the project is construction of a 21 ft. diameter pit approximately 8-ft. deep and an adjacent 7 x 12-ft. pit, stairs and landing all of reinforced concrete. A three-ton bridge crane mounted on a steel support structure will also be installed.

PAGE SEVEN

The new facility will be utilized by the Test Laboratory Department 1610.

The project was designed by Plant Engineering Department 4540. C. M. Morrisset (4543-3) is project engineer.

The contractor's bid for the project was \$22,900. Scheduled completion date is Sept. 30, 1960.

Mountaineers Plan Two Strenuous Hikes For Members, Guests

Two Sunday hikes are scheduled for New Mexico Mountain Club members and guests in addition to the annual two-week outing in Wyoming's Wind River Range, which starts July 30.

Reed Cundiff (5332) will lead an ascent up the west face of the Thumb in the Sandias on July 24.

The following Sunday a strenuous one-day hike from Cowles to Aspen Basin is scheduled. The trip will cover about 11 miles of trail.

Both trips start from Nob Hill at 7 a.m.

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

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One ad per issue per person Must be submitted in writing Use home telephone numbers

Sandia Corporation and

1. Limit: 20 words

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NEXT DEADLINE

FOR SHOPPING CENTER ADS Friday Noon, July 29

WASHER, '58 Westinghouse Laundromat, \$40; accordion, 120 bass, \$125; 17" console TV, \$40; upholstered chair, \$25. Laursen, AX 9-1656.

BDR HOME, hardwood floors, walled yard, forced air heat, built-in range and oven. Robinson, 320 Espejo NE, AX 8-

4 NEW MOON trailer, 37.5 ft., has study area; Hotpoint 4-burner built-in cooking unit, used 3 months. Wilson, BU 2-3225.

REFLEX CAMERA, Beauty Cord, flash, case included; 22 rifle bolt action repeater; movie camera, 8mm Kodak, Capri 1.9 lens. Villella, AX 9-7915.

villella, AX 9-7915.

WINDOW FAN, 20 inch, \$25; new 4-speed portable record player, \$20; baby crib w/mattress and spring. Holliday, AX 9-8927, 424 Conchas NE. LIMOGES CHINA, 8 place setting; china soup tureen; O'Hearn solid maple 38" hutch; 54" drop leaf table, chairs; up-holstered maple bench. Runyan, AL

5-6719. HOUSE TRAILER, '53 Travelhome, 35'x8', 2-bedroom. Smith, Garden Road, Sandia Knolls, BU 2-3430.

88 OLDSMOBILE 88, 4-dr., Hydramatic, R&H, whitewalls. Kelly, AM 8-8913 eve-

2 BRM HOME, air conditioned, hardwood floors, completely walled-in, land-scaped, near bases and university, as-sume FHA loan. Vigil, CH 3-1817.

ENJOY ANIMALS. Pure Nubian doe kid, \$20; 10-week-old small male puppy, 5-month-old sable female collie-type, \$5 each. Shreve, DI 4-7146.

HARDWARE CLOTH, wire, ½ in. mesh, 40 ft. roll, paid \$18, will sell \$12. Metz, AM 8-7989. '59 INDIAN Woodsman, 500cc. Cunningham, AX 9-2402, 1728 Maxine NE.

DRAPERIES, two pair floor length and one short pair, make offer. Hoagland, AX 9-7097.

'57 FORD Fairlane 500, R&H, automatic transmission, new tires, 23,000 miles. Cummings, AX 9-7187. ELECTRIC FAN, 21", 3-speed on 5 ft. pedestal; Warner model 100 plastic laminating press. Turnbough, AX 9-6667 after 5.

2 ACRES, scenic, wooded mountain land on route 66 in Tijeras Canyon, \$1800. Arnold, AX 8-1960.

AUTOMATIC WASHER, Kenmore; modern couch and chair, clean, but needs cov-ers, \$15. Edgeington, AX 9-9458, 3509 Glorieta NE. ENGAGEMENT RING, ½ carat; wedding band, 10 small chips of 6 points each. Proffitt, CH 2-5168 after 5:30.

3 BRM HOME, Princess Jeanne, land-scaped, walled back yard, 4½%, \$71 month, \$2000 buys equity; violin, hardly been used, reasonable. Kellum, AX

9-6018 AQUARIUM, 5 gallon, complete, \$18; antenna rotator w/indicator, \$10. Chifforobe, \$18; NC-60 short wave receiver, \$35. Williams, AM 8-8581, 3936 Smith SF

Power Hawk, \$750.

66 STUDEBAKER, P DeHaan, DI 4-4805. TWIN ROLLAWAY beds, w/mattresses, \$65; box of player-piano rolls, \$3; portable washer and wringer, \$35. Murray, DI 4-5289 after 5

SHOPPING CENTER SHOPPING CENTER

BOXER PUPPY, AKC registered, female. Edens, AL 6-7653. 1 CHEVROLET, half-ton pickup, 4-speed transmission, Komen, AX 9-8881.

'51 CHEVROLET, half-ton pickup, 4-speed fransmission, \$395; frailer hitch, cus-tom, for late model Rambler, \$4. Bentz, Ext. 22233.

REFIGERATOR, Westinghouse, 9 cu. ft., \$50. MacGregor, AL 5-4389 after 5:30

EVAPORATIVE COOLER, portable, \$18; Singer portable feather-weight sewing machine, \$45. Miller, AL 5-6838.

STENOCORD dictating machine, Model C, \$200 or will trade for 1960 21 in. RCA TV table model. Langston, 6500 Cochiti Rd. SE.

Rd. SE.
SWIMMING POOL, 3 Brm., den, dining room, 13/4 bath, carpet, drapes, utility room, sprinkler, AC, walled, landscaped. Padilla, 426 Mesilla NE, AM 8-7476.

SAMOYED PUPPIES AKC registered four weeks old Merillat, 618 Sycamore NE,

GERMAN SHEPHERD puppies, six, 7 weeks old, pedigree stock, but no papers on mother, \$15 each. Gregory, Ext. 29239, Algodones, N. M., UN 7-2432.

'51 RAMBLER, new battery, two new tires, new brakes, new shocks, \$225. Schned-ler, AX 9-1824, 2908 Espanola NE.

INEZ BRICK, 3 bedroom, 13/4 baths, fire-place, w/w carpeting, sprinklers, will sell at appraisal. Kantz, AX 9-5450, 1908 Inez NE.

CARPET, GREY, cotton, 13x15', \$50; Barbell leg press stand, \$15; Cosco high chair, \$10. Marsh, AX 9-2098, 1105 Childers NE.

*54 FORD V-8, 9-passenger country sedan, Fordomatic, R&H, power steering, 2-tone, tinted glass, \$795. Shew, AL 5-0042.

MALLORY COIL and distributor for any 6 volt Chrysler V-8, \$25.; auto window type air conditioner, \$2. Palmer, DI 4-5342.

INEZ BRICK, 3 bdrm, 13/4 baths, new FHA, low down payment, walled, sprinklers, covered patio w/borbeque. Fastle, 7709 Apache NE, AX 9-2750.

HUSKIE MALAMUTES, thoroughbred puppies with pedigree. Koger, 2400 Mesilla Ave. NE, AX 8-0989.

FOR RENT

2 BRM APT., new, duplex, air conditioned, appliances, drapes, extra large parking area, outside storage room. Miller, 3518 Crest SE (at Carlisle).

BRM APTS., furnished, near University, N. Vassar, adults, \$90 and \$95. McCoy, AL 5-7800 evenings. 2 BRM APT., air conditioned, unfurnished, 540 Cardenas SE. Healy, DI 4-8378.

EFFICIENCY APARTMENT for couple, furnished, water and garbage paid, \$65 month; rooms for men, \$25 per month, near university, 216 Princeton SE. Lopez, CH 2-3986.

3 BRM HOUSE, stove, refrigerator, patio, walls, \$90. Jeffers, 8112 Southern SE, AM 8-3617.

2 BRM APT., air conditioned, washer rough-in, Venetian blinds, stove, water and garbage paid, reasonable. Tillman, AL 5-6292 evenings and weekends.

'60 TRAILER, 50 ft. x 10 ft. 2 bedroom, well furnished, located Terrace Park. Rathbun, CH 3-4892. 2 BRM HOUSE, unfurnished, walled yard, modern, wells for irrigation, 212 Pueblo Solano NW. Ortiz, CH 2-7989 after 5:30

and weekends.

2 BRM HOME and den, w/attached garage, schools and shopping, \$110 per month, walled backyard, SE Heights, near Bases, water paid. Culley, AL 6-6308 after 5:20

COMPLETELY FURNISHED 3 brm or 2 brm and den, 13/4 bath, patio, barbeque, air conditioned, etc., 8706 Candelaria NE. conditioned, etc., 87 Bascom, AX 9-1662.

WANTED

ASTRONOMICAL TELESCOPE of medium power, Wiebelt, Ext. 33164, 1132 California SE.

ABY SITTER, dependable, care for 2 children, light housework, preferably older person, 5 days, commute or live in. Vasquez, AL 6-3809. BABY SITTER,

GIRL TO SHARE 2 bedroom apartment, and expenses. Proffitt, CH 2-5168 after 5:30.

SPRINGFIELD 1903A3 issue stock in very good condition. Taylor, AL 6-3774. GOOD HOME for affectionate male Si-amese cat. Dunaway, AX 9-1422.

LARGE DESK in good condition; 33 ½ RPM turntable; someone to share driving from near Candelaria and Moon to Bldg. 880-892. Schultz, AX 8-2731.

HOME FOR full-grown cat which is house-broken and is a very fine pet. Prairie, Ext. 44158.

SHARE RIDE with one other person, Can-delaria and Wyoming to Bldg. 802. Lewis, Ext. 24244.

TWO OR THREE girls to share home with working girl, private bath, swimming pool, air conditioned, NE Heights. Miller, AX 9-1677.

ler, AX 9-1677.

HOME FOR KITTENS about three months old, wonderful pets for small children. Loemker, DI 4-0278.

BABY SITTING in my home, \$10 per week. Pfaffl, Ext. 43182, 3080 38th Place, Sandia Base.

FILE CABINET, metal, 4-drawer, legal size, w/lock. Ogden, CH 3-4723.

size, w/lock. Ogden, CH 3-4723.

TO TRADE portable room cooler, 1 year old, for 6 volt car air cooler. Arning AL 6-9229.

TROMBONE, SLIDE ACTION, must be in good condition, finish condition not important. Robnett, AL 5-6083, 117 Hermosa DR. SE.

TO BUY golf clubs, woods only. Gragg, AX 8-0267.

RIDE TO Virginia or vicinity for brother, help drive, pay own way, last week July, first week August. Church, CH 2-6062, 215 Sycamore NE.

LOST AND FOUND

LOST AND FOUND

LOST—Sterling ring w/oval turquoise stone
½ inch long; moon stone earring;
DeSoto auto keys, Volkswagen keys;
black onyx ring with white diamond;
billfold with ID of Dick Hodges; black
record book, safety prescription glasses.
LOST AND FOUND, Ext. 26149.

FOUND—Pearl earring; lighter found at
Zuni and Virginia; book entitled "Souveniers de La France"; baseball glove
found at Diamond C three weeks ago.
LOST AND FOUND, Ext. 26149.

FOR SALE AT LIVERMORE

FOR SALE AT LIVERMORE

'52 JEEP station wagon, 4 cyl., F. head, 2-wheel drive, overdrive, \$300. Jones, HI 7-0143.

3 BRM HOME, 2 baths, GE kitchen including dishwasher, all-wool carpeting, fenced, landscaped, Granada Village, assume Gl loan. Anderson, HI 7-0122.

3 BRM HOME, 2 bath, complete, \$18,750, 41/2 loan; 17 ft. custom craft cruiser, w/motor, trailer, \$1395; '56 Jaguar 2.4 sedan, \$1850. Carter, HI 7-5549.

3 BRM HOME, 2 bath, on extra large lot in Irvington, custom built, w/w carpeting. Brown, Ext. 2544.

FREEZER, ADMIRAL, 1960, 12 cu. ft. upright, \$160. Dawson Ext. 2230.

HOBBYHORSE, \$15; crib mattress, \$5. Overturf, HI 7-4669.

OSCILLOSCOPE, EICO MLD. 460. 2 years old, DC to 4.5MC response, bought for \$85 as kit, asking \$60. Simpson, Ext. 2334.

FOR SALE

Include name and organization.

AEC employees only No commercial ads, please

- '51 DODGE, two door; easy spin-dry washer. Niper AX 9-6290. GAS RANGE, apartment size, with timer, \$40. Melvin, AX 9-8913.
- BRAIDED RUG, 9'x12', aval, wool, beige and brown. Less than half price, \$35. Miller, 1832 Richmond Dr. NE, AL 5-1324.
- CAR TOP luggage rack, gray, tubular steel frame, hardwood slat bottom, 36"x37", \$8. Thayer, 1424 Hoffman, NE, AX 9-
- 21" SILVERTONE TV with stand, \$65; 17" Stromberg-Carlson, old but works well, \$35. Wyant, AX 8-0371. NO IRON curtains, white, four panels 64" x81", four panels 42"x81", \$10. Smith, AX 9-6873.
- FIREPLACE WOOD and kindling, full pick-up load, \$25, you haul. Lambert, AL 5-9630, 5910 Hannett, NE. '58 TR-3 or '57 Volkswagen, your choice, both loaded. Sabisch, 3821 Delamar, NE, DI 4-6185.
- PALOMINO HORSE, stud, 2 years old. Miller, TO 5-7747. SHORT BEAM, 20 meter gonset, \$20; 22' wood tower, \$10; beam rotator, \$25; 2 meter converter (30 mc-IF) \$10; Marshall, DI 4-7991.
- '55 FORD ranch wagon, Fordamatic, \$600 or best offer; '59 Chevrolet Biscayne, Power Glide Positraction, \$1700. West, AX 9-1878.
- GERMAN SHEPHERD from famous Champion "SWEEP" line, just maturing, \$350 value for \$150. Must sell, no space. Miller, AM 8-3240.
- MOUNTAIN CABIN in Manzanos, 30 min. from town on South 10, completely fur-nished, will trade, \$7600. Kane, AL 5-2240 or AX 9-7425.
- FM TUNER, Eric, cosed, \$40. Ross, Ext. 2-0132. WINCHESTER MODEL 94, lever action 30-30 caliber, \$55. Rechner, DI 4-9776
- OSCILLOSCOPE MODEL 460, EICO, \$75, EICO signal generator model 324, \$25, PACO tube tester, \$25. Day, AL 6-6360. WASHING MACHINE, GE automatic, sev-eral years old, works well. Must sell, make offer. Maynez, 1101A Louisiana,
- 3 BDR BRICK, 13/4 baths, walled, land-scaped back yard, near shopping center. Weaver, CH 2-5560. SHETLAND SHEEPDOGS (toy collie) puppies, championship blood lines, registration papers and certified pedigree included. Heuer, AX 9-2263.
- Briggs and Stratton engine, \$30. Smaller, AX 9-8413. POWER LAWNMOWER 22"
- OUTSIDE DOOR 2'8" x 6'8", \$3; car cooler, window type, \$4. Krahling, 1036 Princeton NE, AM 8-8126.

- MAYTAG WASHER, wringer type with pump, \$30. Jones, DI 4-9393.
- '58 CHEVROLET six, 2-dr. Biscayne, std. shift, R & H, power steering, good tires, \$1400. Earnheart, 3625 California NE, AX 9-9153
- '57 SCOOTER, Cushman Eagle, completely overhauled, \$175. Slesinger, AX 9-4626.

 OPERA TICKETS, Tosca (Puccini), Santa Fe Opera, sell 2 tickets at \$2.00 each for Wed., Aug. 3. Bouchard, 1617 Anderson Pl. SE. 3 BDR HOME, 13/4 baths, near elementary, Jr. high, high schools, air conditioned, Gl Loan or refinance. West, AX 9-1878 or AL 6-9189.
- GERMAN SHEPHERD puppies, black and silver, AKC registered, champion sired, first showing. West, AX 9-6775.
- MOUNTAIN LOT, 13/4 acres, 9 miles east on US 66. Healy, DI 4-8378.

 AUTOMATIC WASHER, rebuilt motor with guarantee, \$50. Brady, 10116 Los Arboles, NE, AX 9-6037.

 3 BDR HOME, 13/4 bath, brick, Hoffman, corner lot, sprinklers, air conditioned, dishwasher, garbage disposal, \$800 down. Thompson, 2702 Mesa Linda Dr. NE, AX 9-0092.
- '50 FORD, 4-dr., R&H, overdrive. Hansen, AM 8-0769. 2 BDR HOME, carpets, landscaped, work-shop building, \$11,000 total, buy equity for low \$60 payment. Ironrite mangle, \$60. Smith, AL 5-0623.
- CASEMENT WINDOW, steel, screens, glazed, 4423, \$30; car-top luggage carrier, \$7.50; sidewalk bike; entrance switch; meter bose. Freyermuth, 2710 Los Arboles Pl. NE, AX 9-2053.
- AIR CONDITIONER, one ton, window-type, cost \$160, used 3 months, will sell for \$80. Ray, AX 8-0408, 11017 Phoenix
- '56 CHEVROLET truck, ½ ton carryall, 6 cylinder, 6 ply tires, new paint, spotlight, extra gas tank. Eiler, AL 6-4015, 8016 Kathryn SE. 9 CHEVY, 4-door sedan, heater, turn signals, conventional shift, 54,000 miles, recent valve job, ideal second car, \$275. Shunny, AX 9-2787.
- BOODLE-BUGGY, converts to car bed, in-cluding mattress, \$10; baby walker, \$2; teeter-babe, \$1. Keister, DI 4-2979, 3111 Aliso Dr. NE.
- '58 ENGLISH FORD "Consul," 20,000 miles, R&H, \$1195. Winblad, DI 4-3109, 4413 Palo Duro NE.
- Palo Duro NE.

 DEN FURNITURE, western styling, includes divan, platform rocker, coffee table, end table, lamp, \$125; misc. baby furniture. Beasley, AX 9-9053.

 '55 CHEVROLET, Bel-Air convertible, power steering, power glide, R&H, yellow and white, new top. Kelly, AL 5-7226.

 HOTPOINT REFRIGERATOR, 6 cu. ft., \$35; 24 in. girl's bike, \$20; 26 in. girl's bike, \$25; Organo w/11 stops, \$400; bird cage, \$1. Scranton, AX 9-5720.

 GOKART, 2½ h.p. Clinton, \$100; new
- GOKART, 2½ h.p. Clinton, \$100; new 17" American Flyer wagon, \$8; new Kodak Starflash outfit, \$6; Rototiller, \$75. Pennypacker, AX 9-1547. BEAGLE PUPPIES, \$5 each; '51 Stude-baker Commander, \$150 or best offer. Everett, AX 9-6057.
- GOLF CLUBS, Kroyden set of 9 irons and 4 woods, never used. Ruff, Ext. 48190. '58 PONTIAC, 4-door Catalina, White wall tires, Power brakes, air conditioned, \$1800; '54 Chevrolet, 2-door, R&H, \$385. Kingsley, AX 9-1226, 9630 Elvin NF.
- MATCHING BABY crib and chest, \$40. Hayes, AM 8-1596.
- GOLF CLUBS, Wilson, 3 Sarazen woods, 9 Snead irons, including putter, nylon bag, \$75. Risse, AX 9-5002.

HUGE EYE of T. A. Allen as

seen through the magnifying

glass examines a balance wheel

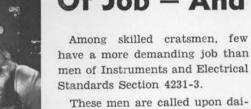
prior to incorporation into a

timing device being constructed

in the Development Shops.

LAB NEWS July 22, 1960 Top Flite Craftsmen Sandia's 'Mr. Fixits'

They Tackle Almost Any Kind Of Job - And Finish Quickly



ly to repair and calibrate anything from a high speed shutter of a camera to an electrocardiograph from Sandia's medical organization. Jobs range from repair of tiny precision timing devices to the workhorse of any electronics laboratory, an oscilloscope.

T. A. Allen, 4231-3 supervisor, says that employees of the section will tackle any precision instrument repair job and get it back in working order as fast as

Six electronic technicians handle repair of all electronic instruments while four former watchmakers perform work on the delicate precision timing devices, meters and camera work.

The instruments are repaired and calibrated to factory specifications using a secondary standards calibration console. The section has a capability of calibrating electrical instruments to 1/100th of one per cent accuracy.

Unique services of the section include providing and maintaining the equipment connected to telephones on Sandia Base that broadcasts a continual 1000 cycle tone. This tone is used for calibration of many types of electronic devices in Sandia laboratories. Dialing the number 10 on the phone will bring this tone.

A similar service is provided by phone on request for a 100 KC signal also used for laboratory equipment calibration. A clock linked by radio to station WWV, National Bureau of Standards in Washington, D. C., is also maintained by the section to provide time signals by phone on request. These signals provided on the phone are maintained to extreme accuracy, deviating less than one part in 10,000,000.



INSTRUMENT REPAIRMEN Randy Williams, left, and Bob Pegue discuss work to be performed on a precision voltmeter. In foreground are several laboratory instruments in process of repair. The shop repairs about 60 oscilloscopes per month.

Speedy Jet Trip to Europe Makes Leisurely 8-Country Trip Possible

"Six-thirty get up, 7:00 have breakfast, and 7:30 board our bus," was the way Albert R. Elwell (1612) recalled his hectic but interesting trip to Europe.

Al and his wife returned this month from several weeks on the Continent. They flew to London at 600 mph on a Boeing 707, then joined a conducted tour with 30 other Americans, to travel by bus through eight countries.

Highlights included a public

audience with the Pope, a visit to wine cellars in the Moselle and Rhine valleys, and a glimpse of England's Prince Phillip-in New

While motoring through Germany they saw many of the Corpus Christi day parades and observances in villages and on the following day the Germans officially commemorated the East Berlin revolt of 1953.

Traffic was particularly heavy in Italy and in some cities the bus had to travel with two wheels on the street and two on the sidewalk to get through the narrow streets. But, it was on the highway where the only accident occurred. Their bus was side-swiped by a truck. Fortunately no one was injured, just shaken up.

"Friends at work on Tuesday couldn't believe that on Sunday morning we had been visiting places of interest in Paris. We left our Paris hotel at noon, flew by helicopter to Brussels (we were the only ones on the 12-place whirly bird), boarded a 707 for the flight to New York City and had a five hour layover there before leaving for Albuquerque. We arrived on Monday," Al concluded.

I. L. Clements to Retire This Month

I. L. Clements will retire the end of July after eight years with



Sandia Corporation. Mr. Clements is a millwright in Millwright and Machine Ser-

He and his wife will continue to make

Division

their home at 705 Georgia SE, but they will spend part of the summer months in Folsom, N. Mex., near the Colorado border.

Carpentry work and fishing will take up some of Mr. Clements' leisure time.

In a year or two the Clements plan to tour the Pacific North-



Sandia Laboratory HAS WORKED 13,245,000 MAN HOURS OR 369 DAYS WITHOUT A

DISABLING INJURY

HAS WORKED 3,450,000 MAN HOURS OR 1615 DAYS WITHOUT A DISABLING INJURY

Livermore

Laboratory



INSTRUMENT REPAIRMAN W. C. McGrew, a trained watchmaker, is shown here adjusting the shutter mechanism of a press camera sent to Section 4231-3 from the photographic laboratory.



ACCURATE READING from a precision milliameter is taken by Charles Skaloud who uses a magnifying glass to insure a precision adjustment. Section calibrates all instruments repaired in the shop.



DELICATE MODIFICATION to a commercial railway watch is performed here by Everett Click. Using this mechanism for the heart of a precision escapement timer reduces considerably the cost of special Sandia prototype.



FRED DRUMMOND is shown here repairing a radio used by Sandia Security organizations. The section performs regular repair and maintenance of Sandia Lab radio equipment.



"The techniques of maintaining our freedom change with

the passing years ... the need for security is constant."

Art work was done by the Technical Illustration Section (8232-5).

