



Admiral Parker

DASA Chief Visits Sandia For Briefing

Rear Admiral Edward N. Parker, Chief of the Defense Atomic Support Agency, Washington, D. C., paid a brief visit to Sandia Laboratory facilities on June 23.

Among other decorations, Admiral Parker holds the Navy Cross with two gold stars for his command of the USS Parrott, USS Cushing and Destroyer Division 59 during World War II action in Borneo, the Java Sea and Guadalcanal.

In 1946 he served as Commander, Surface Patrol Group, Joint Task Force One, during the atomic bomb test at Bikini Atoll.

Before assignment to his present position in January 1956, Admiral Parker served as Deputy Chief of the Armed Forces Weapons Project, and as Special Assistant to the Deputy Chief of Naval Operations (Plans and Policy), Navy Department.

Bids Received for 2nd Sandia Reactor

Bids for construction of four small technical buildings to house Sandia's second nuclear reactor were received last week, the AEC has announced. The reactor, prompt critical type patterned after Los Alamos Scientific Laboratory's Godiva reactor, will be used to investigate the effects of short, high-intensity pulses of neutrons on various materials.

Radiation Effects Department 1630 will operate the new reactor as well as the larger Sandia Engineering Reactor Facility (SERF) now under construction in Area III. The second reactor will be located adjacent to SERF.

The construction project consists of a concrete dome, 15 ft. in diameter and 20 ft. high; a block-masonry building, 32x100 ft.; a prefabricated steel building, 16x31 ft.; and a multiplate arch structure, 30x30x15 ft. Surface road work, fencing, and support construction are included.

Underwood Testman Company of Albuquerque submitted the apparent low bid of \$274,800 for the project.

Vernon E. Kerr (4543-3) is the Plant Engineering Department project engineer.

Work is to be completed within 150 days after the contractor receives notice to proceed from the AEC.

Special Ceremony Planned to Observe Sandia Safety Record

A. R. Luedecke, general manager, U.S. Atomic Energy Commission, will officially recognize Sandia Laboratory's new all-time AEC safety record during a special rally Monday, July 11 at 11:30 a.m. in Tech Area I.

A stand will be erected east of the north wing of Bldg. 802. Sandia Laboratory employees will be excused from their jobs in time to attend the rally.

The program will start with A. Burton Metzger, manager of Safety Engineering Department, introducing Kenner F. Hertford, manager, AEC-ALOO. Mr. Hert-

Sandia Corporation LAB NEWS

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HIGH DENSITY CONCRETE was poured into reactor Facility last week. Doors, which weigh about 660,000 pounds, will be lifted by hydraulic power.

Special Density Concrete Doors Poured for Sandia's Engineering Reactor in Area III

Last week, concrete was poured to fill six giant doors surrounding the reactor core. The Sandia Engineering Reactor Facility (SERF) is now about 70 per cent complete.

The doors, weighing as much as 660,000 lbs., are constructed of half inch steel plate and filled with a specially mixed 4.7 density concrete. They are mounted so as to rise hydraulically inside their steel frames.

Instead of containing a regular sand-gravel-cement mix, concrete going into the doors was mixed with magnetite iron ore as well as old crusher balls from a

steel ball mill.

With this kind of cement as shielding, chambers adjacent to the reactor cell will be safe from radiation.

One of the largest doors is mounted on a hydraulic ram 24 inches in diameter which can exert about 1500 lbs. pressure per

square inch. The door itself is five feet thick, 18 feet tall and 30 feet wide.

SERF construction is scheduled for completion in September 1960. It should be in operation by January 1961, according to Radiation Effects Department 1630 which will operate the reactor.

AEC Seeks Bids For Building to House Research

The Atomic Energy Commission last week advised contractors that bids will be invited about July 12 for construction of Sandia's new Research Laboratory Bldg. 861, Phase II.

The new laboratory will be similar in size and structure to the recently completed Materials and Standards Laboratory, Bldg. 861, Phase I. The building, containing 60,000 square feet, will extend north from the west end of present 861.

Construction will include installation of steam heat and refrigeration, power, lighting, plumbing, laying paving and providing for various technical systems for strict temperature, humidity and dust free requirements.

Research Seminars Announced for July

Three research seminars and a development seminar are scheduled during the month of July, according to Craig Hudson (5511), chairman.

H. R. Vaughn and M. D. Bennett (both 5141) will present "Some Results from the Sandia Mach 5 Test Vehicle" at a meeting July 12 at 1:30 p.m.

"Recent Advances in Seismometry" will be presented by Prof. J. A. Peoples, Jr., University of Kansas, on July 19. Meeting starts at 1:30 p.m.

On July 20, H. S. Levine (5150) will present "Crystal Boundary Structure Studies" at 9:30 a.m.

Tickets will not be required for any of these research seminars. All meetings will be held in Bldg. 815.

The development seminar in materials will be held July 21 at 9:30 a.m. in Bldg. 815. Prof. Gregory Comstock, Stevens Institute, will present "Present Status of Powder Metallurgy." Tickets will be required.

Sandia Corporation Signs Supplementary Agreements This Week

Sandia Corporation signed supplementary agreements this week with the Metal Trades Council and Office Employees International Union covering wages and the amount of the Corporation's payment on the employees' premium under the Health Care Plan.

The new agreements provide for wage increases ranging from 6 cents to 11 cents per hour in the Council and \$2.40 to \$4.40 per week in the Union.

The Corporation agreed to contribute a total of \$2.80 a month toward payment of employees' premium under the Health Care Plan.

These agreements terminate at the same time as the complete contract with these units—July 5, 1961.



TEACHERS attending the National Science Foundation's Mathematics Institute at the University of New Mexico visited Sandia recently. They were shown the IBM 705 facility, the Sphere of Science and viewed the Sandia Story. One guide was D. K. Robbins (3453), right.

Editorial Comment

Sandia and Its Communities

In reading the other day we learned that economists have come up with some figures which indicate the things a company contributes to or supports in its community.

The figures were the average arrived at in a nationwide study so we applied them to the total number of employees at Sandia Corporation who live in Albuquerque and Livermore.

Here's what we found: Sandia contributes to or supports in the community:

	Albuquerque	Livermore
Annual retail purchases	\$27,000,000	\$ 3,375,000
Bank Deposits	36,000,000	4,500,000
Life Insurance	54,000,000	6,750,000
Taxable Property	90,000,000	11,250,000
Population supported	51,000	6,375
Acres of farmland needed to feed	237,600	29,700
School rooms	792	99
Professional men	864	108
Stores and shops	1,152	144

These are some of the contributions of the "typical" company of our size. It is obvious that these figures are not exact for Sandia, nor are they exact for any company of our size. The actual figures, if they were compiled, would be higher in some categories and lower in others. These may be considered, according to the economists, as reasonable approximations.

On several previous occasions the **Lab News** has called attention to other types of contributions Sandia employees are making to the community. At that time we talked about service. Here we are talking about financial contributions.

Putting these two together you get a pretty fair idea of how much impact employees of Sandia Corporation make on the town in which they live.

Sympathy

To H. C. Carmody (4612) for the death of his mother-in-law in Sharon Springs, Kan., June 11.

To M. J. "Red" Madlener, Jr., (1332) for the death of his wife, Ruth, in Albuquerque June 7.

To J. W. Pinkerton (2722-2) for the death of his wife, Ruby, in Albuquerque June 26.

To Edward Peterson (4253-2) for the death of his mother in Kent, Ohio, June 24.

Ed Stout Honored For Scout Work At White Sands

Serving as a Boy Scout leader is an unusual extra-curricular activity for Ed Stout since he doesn't have a son.

Ed is supervisor of White Sands Missile Range Operations Section 5252-1, and has been the Corporation's resident representative there for the last seven years.

The Stouts have an adopted daughter, Linda, 12 years old, but Ed felt he still had the time to devote to volunteer Scout work. Recently Ed was honored by cubs, den chiefs and den mothers for his three years of leadership as WSMR Cub Master.



SANDIAN ED STOUT as recently presented Holy Bible by members of White Sands Missile Range Cub Scouts in recognition of his three years of leadership in scouting activities while assigned there.

Constructive Vacation

Want to return from your vacation looking rested and relaxed? Follow the example of LeRoy Hassebroek (4423-1)—he spent his vacation building a cabin at Horseshoe Springs.

New Home Owners

Dave Kirk (8114-3) has moved into his new home at 3865 Dartmouth Way in Livermore.

Albuquerque new home owners include Larry E. Bowen (4254-2) and his family, now residing at 1712 Virginia NE, and Donovan V. Dawson (4251), whose new address is 4919 Pershing SE.

Howard Wicke (5126) has moved into his new home at 8514 La Palomita NE.

Outstanding Airman

Dennis Adkins (1612) was honored as outstanding airman in maintenance work during the recent Governor's Day review of the New Mexico Air National Guard. Dennis, a staff sergeant with the 188th Fighter-Interceptor Squadron, is responsible for servicing the unit's F-100's. The review concluded the guard's two week summer training session at Kirtland Air Force Base.



MATTHEW UNGERMAN, retired Sandia employee, recently was awarded first place in a city-wide mobile home garden contest. Mr. and Mrs. Ungerman's home is at 6500 Cochiti Road, SE

Two Employees Back From Military Service

Two Sandia employees have returned after military service in different parts of Germany.

Delbert D. Stewart was in the Army for two years and spent 10 months stationed in Erlangen, Germany. He had been a ma-



D. D. Stewart Tony Garcia

chinist at Sandia for nearly three years before entering military service and is now in Project Section 4253-1.

Tony Garcia was also in the Army for two years and he was stationed 19 months at Bad Kreuznach, Germany, with the Second Evacuation Hospital. He initially came to work at Sandia in October 1954 and is now assigned to Project Shops Division 4254.

C. J. McGarr Promoted

The promotion of C. J. McGarr, Director of Service Operations 4600, to Lieutenant Colonel in the Air Force Reserve has been announced.

Mr. McGarr has served as Training Officer, Executive Officer and Group Commander of the 9174th Air Force Group, whose activities cover New Mexico.

Sick List

Friends and co-workers in Bldg. 840 send best wishes for a speedy recovery to Russell E. Herbert, supervisor of Section 4254-1. He is convalescing following recent surgery.

Wishes for a speedy recovery are sent to Frances Schaffer (4423-1), who has been ill for some time.

Congratulations

Born to:

Mr. and Mrs. John Wichelns (4325-2) a daughter, Jill, on June 18.

Mr. and Mrs. Frank Chavez (3241) a son, Robert Paul, on June 11.

Mr. and Mrs. W. A. Gardner (3151-2) a daughter, Karen Marie, on June 28. Sue is on leave from Section 3153-2.

Mr. and Mrs. H. C. House (8213-2) a son, David, on June 25.

Mr. and Mrs. Gordon Bennett (8232-2) a daughter, Carol Jean, on June 18.

Mr. and Mrs. Glen Norris (1262-1) a son, Steven Mark, on June 7.

Example Set for Mobile Homeowners Wins Top Honors in City Contest

"There can be just as much grace and charm living in a mobile home as in a conventional house," Matthew A. Ungerman, a retired Sandia Corporation employee, believes. Matt retired in March 1959, from the 2223 organization.

Judges in a recent mobile home garden contest agreed with Matt. They chose his home at Thornton Mobile Park, 6500 Cochiti Rd., SE, as having the best grounds in Albuquerque.

The judges' notes read, "Has everything in perfect scale. Beautiful from any angle. Excellently maintained."

The contest was held to stimulate interest in beautifying Albuquerque's mobile home parks, a project Matt believes in whole-

Military Returnee

Tex Samuelson has returned to work at Sandia Laboratory after two years service in the Army. Tex



Tex Samuelson

had been a shipping clerk for four years when he was called into military service. Most of the time he was stationed at Fort Huachuca, Ariz. He is now a utility operator in Division 4614.

Sets Course Record

Jim Leonard (1247) shattered the Los Altos Municipal Course record June 24 with a sparkling 32-32-64. Par is 72. The 64 surpasses the 66 set earlier in June by Billy Moya, Los Altos pro.

At Salton Sea

Bernice Beeson (3321) will be at Salton Sea for an indefinite period of time representing the Medical Department.

heartedly. "I decided to set an example," Matt said. He did.

Matt and his wife spend about three hours a day caring for the many plants and trees surrounding their mobile home. Still very active at 71, Matt keeps busy with the gardening, shopping, visiting and entertaining friends.

"Theres' always something to do," he says.

Around Christmas time Matt returns to Sandia to decorate the front of Bldg. 800, a decorating job he has handled for several years, both before and after retirement.



Judy Dodd (4113)

Take A Memo, Please

Where there's life, there's volts. Any live circuit constitutes a hazard and all live circuits should be treated with respect.

Sandia Corporation

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Cratering Study Set July 12 With Blast at Nevada Test Site

An underground detonation of 500 tons of chemical high explosive (non-nuclear) is scheduled to be fired at the AEC's Nevada Test Site on July 12 as part of a series of cratering effect tests for the Plowshare Program. The spherical charge will be placed at a depth of 125 feet in desert alluvium.

Test Group Director for the detonation, which is named "Scooter," is H. R. MacDougall of Sandia's Test Project Division, 5254, and W. R. Perret (5112) is scientific advisor to Mr. MacDougall. Technical direction of Plowshare is under LRL, and the experimental work at the NTS is under the supervision of J. E. Reeves, Project Manager and Assistant Manager for Test Operations, AEC-ALOO.

The detonation is planned to obtain additional information on the relationship between energy yield, depth of burial, and the crater size resulting from the explosion.

The arming and firing of the charge is being supervised by R. J. Burton (5254).

The six specific areas to be studied in the experiment are cratering characteristics, throw out distribution, particle trajectory, ground motion, close-in air blast, and distant air blast (microbarograph) studies.

The major studies in the area of crater characteristics will involve correlation of the crater dimensions with data from smaller detonations for validation of scaling laws. The project leader in this area is F. B. Collins (5254) and the scientific advisor is L. J. Vortman (5112).

The throw out distribution will be studied by stretching two oil-stabilized strips, 20 by 300 feet, outward from the crater, and by distributing dust collectors along several azimuths at ranges out to 10,000 feet from ground zero. These studies will be made to account for all of the material moved by the explosion. Project leader for the area is F. B. Collins (5254) and scientific advisor is A. J. Chabai (5112).

Particle trajectory studies will be made by using numbered and indexed radioactive pellets that will be placed at various depths about the charge prior to firing. The pellets were prepared by H. L. Rarrick (3361). The project leader for this study is F. B. Collins (5254) and the scientific

advisor is A. J. Chabai (5112).

Ground motion will be studied from recordings initiated by electronic gages that will provide close-in measurements, time of arrival, earth acceleration, velocity and stress and strain data. Surface motion photography will be performed by the Edgerton, Germeshausen & Grier, Inc. Project leader for this area is R. C. Bass (5254) and scientific advisor is W. R. Perret (5112).

Air blast data will be obtained from pressure gages along the ground level from the crater lip to 1200 feet out. This instrumentation will be augmented by four ground stations and four balloon stations provided and manned by the Naval Ordnance Laboratory. Project leader of this phase is R. C. Bass (5254) and scientific

advisor is L. J. Vortman (5112).

The microbarograph studies will be conducted at three off-site stations (Bishop and Inyokern, California, and near Beatty, Nevada) and three on-site stations at about 10-, 30- and 60-thousand feet ranges from ground zero. The purpose of the measurements recorded by the stations will be to determine the effect of the charge burial on distant blast pressure. In addition, chaff rockets fired from Tonopah will help to supply information on the effects of upper-air conditions on the blast propagation. Project leader for this study is J. P. Johnson (5254) scientific advisor is J. W. Reed (5111).

A future issue of the Lab News will carry a picture of the crater created by the detonation.

New Publication Provides Extracts Of Environmental Testing Articles

The first issue of Environmental Testing Abstracts, a publication authored by engineers in Sandia's Test Laboratory Department 1610, will be ready for distribution July 14.

"The Technical Library staff customarily scans incoming publications and sends to us those dealing with the different phases

of environmental testing," R. S. Hooper, supervisor of Systems Tests Section 1613-3, explained. "Interested engineers would read the articles but no one else would benefit."

Under the new system, Mr. Hooper assigns the articles (appearing in technical journals and even English translations of Russian articles) to one of nine engineers. The men read the articles and write a short abstract for publication. In that way they are able to keep abreast in their own field yet the other 200 people in the department can also be aware the information is available.

Vol. 1, No. 1, will contain about 50 abstracts in 18 general categories such as high temperature testing, vibration, reliability, space environment, non-destructive testing, humidity measurement, etc.

Present plans call for the abstracts to be available monthly. Editorial assistance is being given by L. C. Baldwin (3423).

Information regarding copies may be obtained from Mr. Hooper at ext. 44164.

L. A. Joseph Died Suddenly June 19

Louis A. Joseph, an order analyst in Engineering and Research Support Division II, died suddenly June 29. He was 56.

Mr. Joseph had been employed by Sandia Corporation since December 1954 and had been a resident of Albuquerque for seven years.

Survivors include his widow, two sons Walter W. (who works in Division 1222) and Justin C., and eight brothers and sisters all of whom live in Philadelphia.

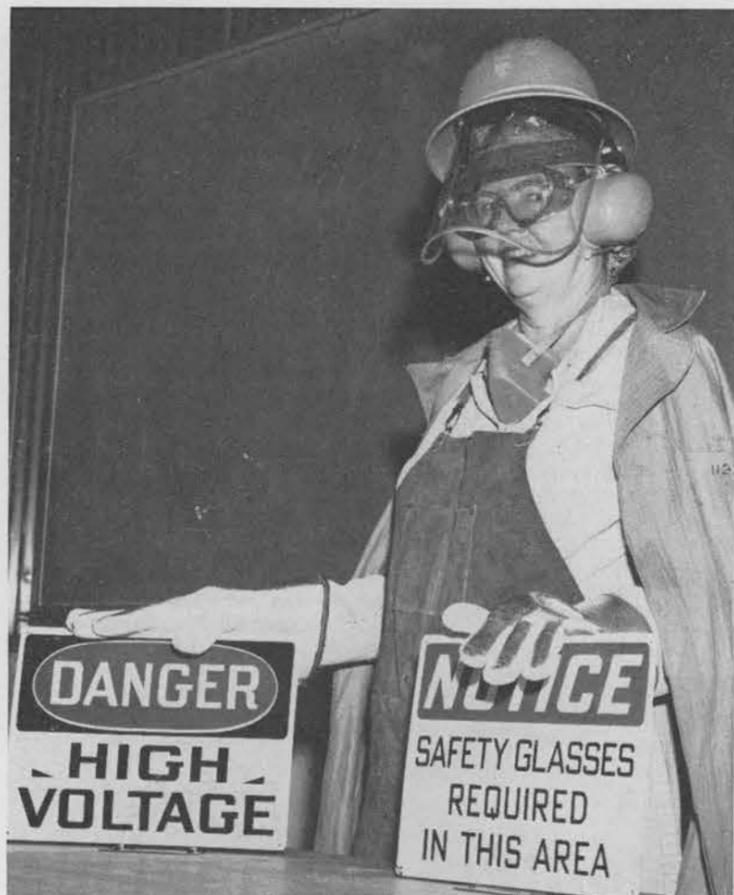
Funeral services were June 30 followed by burial in B'nai Israel cemetery in Albuquerque.

Sandia Summer Hire Earns Naval Academy Berth by Competition

Paul Larned, 1959 summer hire in the Maintenance Division 8222 at Livermore Laboratory, has been accepted as a cadet at the U. S. Coast Guard Academy at New London, Conn. He is the son of AEC-ALO Program Coordinator at Livermore, John A. Larned.

Paul, a graduate of Pleasanton High School, placed in the top 10 per cent in nationwide competition for the appointment.

Upon completion of his schooling at the Coast Guard Academy, Paul will receive a Bachelor of Science degree and a commission as Ensign in the U. S. Coast Guard.



BETTER SAFE than sorry, says Kathryn Callow, electronics fabricator in the Electronics and Plastics Section (8223-3) at Livermore Laboratory. Kathy, who doesn't believe in playing half safe, said, "I don't want to spoil our splendid safety record."

AEC Receives Bids for Remodeling Two Buildings in Sandia Tech Area

Bill Stuckman Construction Company of Albuquerque is apparent low bidder for construction projects to modify Bldgs. 892 and 808, the AEC reports.

The modification of Bldg. 892, Phase I will provide space for activities of Weaponry Training Department 5310. This includes

remodeling about 3600 sq. ft. by installing full height partitions in the northeast high bay area of the building. The area will be used for making training films and will provide for an airlock for access of vehicles. A bridge crane will be installed as well as a new finned-radiation heating system. Revisions to existing power, lighting and sprinkler systems will also be made.

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

The contractor's bid was \$27,400. Estimated completion date for the project is Aug. 19.

Modification to Bldg. 808 involves the southwest quadrant of the building. Equipment will be relocated and the building remodeled to better accommodate this equipment.

When completed, the area will be occupied by the ceramic laboratory of the Inorganic Materials Division 1621.

R. M. Simmons (4543-2) is the project engineer for Plant Engineering Department.

Stuckman's bid for the project was \$31,900. Completion date is estimated to be Aug. 26.

Supervisory Appointments

DONALD A. SKINROOD to supervisor of the Test Services Division, 8123.



Don has been with Sandia for 12 years, joining the Corporation in Albuquerque in the drafting organization. Before transferring to Livermore in 1957 he served in various supervisory capacities in the drafting, development, and field test organizations.

Since his transfer to Livermore in 1957 he has been in the test organization, serving as section supervisor since 1958.

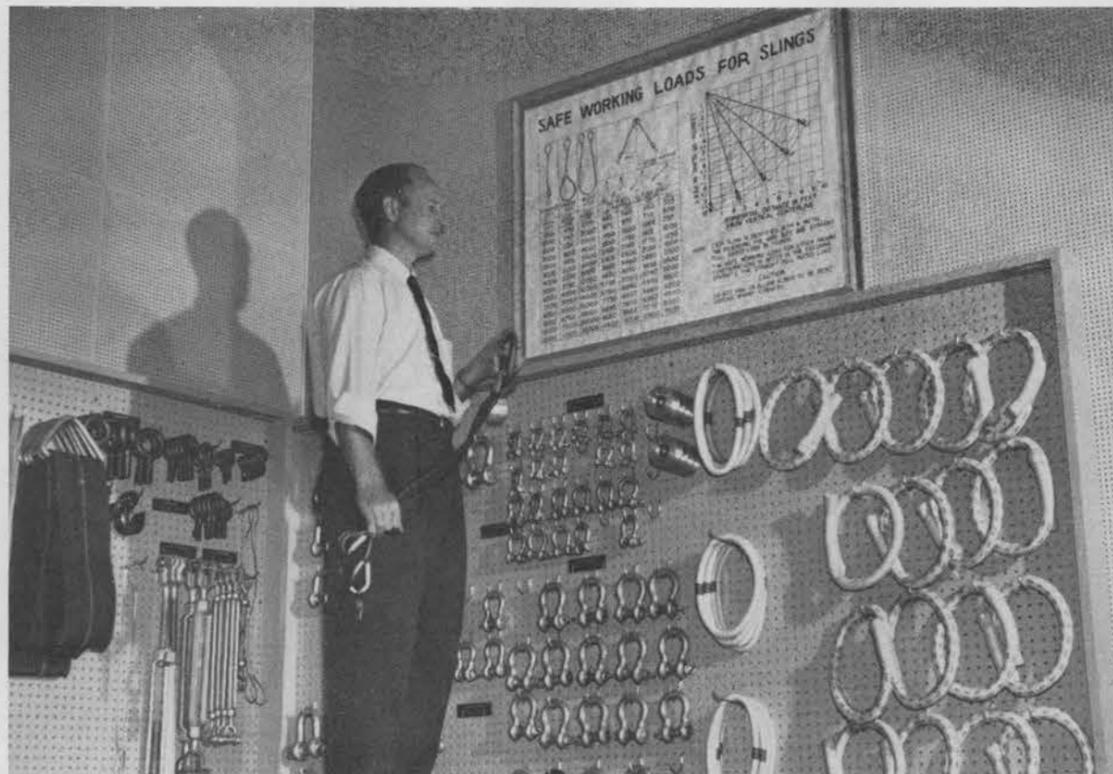
Before joining Sandia Don worked for Raytheon Industrial Products Division in Chicago and Tennessee Eastman at Oak Ridge. He is a graduate of Northwestern University where he received his Bachelor's degree in electrical engineering in 1943. He is a senior member of IRE.

ROBERT I. PETERSON to supervisor of the Telemeter Development Section, 8122-2.



Bob's been in telemetry and radar instrumentation work since he joined Sandia Laboratory in 1952. He transferred to Livermore Laboratory in March of this year. Before joining Sandia Bob worked for a year under a teaching fellowship at the University of Washington where he had received his Bachelor's degree in electrical engineering the year before.

He is a member of Sigma Xi, science honorary, Tau Beta Pi, engineering honorary, and Phi Beta Kappa, scholastic honorary.



THE RIGHT PLACE for the right equipment is this sling and handling gear board designed by Dale Wire, mechanical engineer in the Test Design Section (8121-1) at Livermore Laboratory. The board identifies load limits for each type of equipment and keeps it from being damaged.

Livermore Radio Hams Active In Local Community Programs

The call of the LARK echoes over the meadows . . . W60ZU calling CQ, W60ZU calling CQ.

The "LARK" is the nickname of the Livermore Amateur Radio Klub, which is active in many community service programs in the area. There are two Sandians in the club, A. L. "Bud" Pearson (8222-2) and Tom Jones (8162-1). Bud and Tom are known as K6DXA and K6GBO, respectively, to other "ham" operators.

Members of the group form the nucleus of the Livermore Civil Defense Communications Team, on standby duty around the clock. The team provides radio communications for disaster areas.

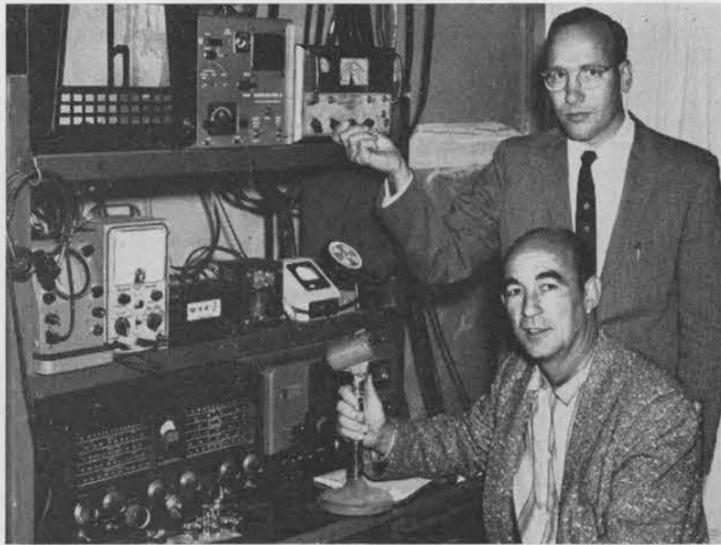
Bud Pearson is also active in a Traffic Handling Network throughout California. Members of the network use their ham radios to serve the communities in which they live.

Always on the alert, they provide their areas with advance warning of impending disasters. As a recent example, one amateur radio operator recently spotted a forest fire. With his mobile unit radio transmitter he alerted the State Forestry Service. The fire was put out before great damage was done.

Bud owns radio equipment which can be made to operate from home or from his car. Tom has only fixed equipment.

The most exhausting experience Tom ever had in all his years as a radio ham happened when he was operating a naval radio facility in Corpus Christi, Tex., a while back. A severe snowstorm had cut the city off from outside communications for a radius of about 200 miles.

For a continuous 36-hour period Tom sent and received information, emergency calls and Western Union messages.



RADIO "HAMS" A. L. Pearson (8222-2) and Tom Jones (8162-1) are among many Sandians at Livermore active in the amateur communications field. Bud and Tom are both members of LARK.

Three Western Union girls read over his shoulder trying to copy the messages as fast as he transcribed them from Morse code. He grabbed a bite to eat when possible, and drank coffee to keep awake.

"It was a long haul," he said, "but I was glad to be of service." In appreciation of his efforts, the commanding officer of the Eighth District send him a Letter of Commendation.

But Bud and Tom aren't the only hams at Livermore Laboratory. Others include Howard Cole (8121-2) WA6EYQ; Merle Richard (8121-1) W6BPC; R. F. Facer (8142-2) WA6IOU; R. C. Dougherty (8141-1) W7SGC; Dale Irving (8234-2) WA6JDV; Carl Furburg (8152-1) W7QFZ; and John Seuser (8223-3) K6GPO.

Active also are Orlando Moore

(8121-2), Ken Mitchell (8141-2), Elvis Skidgel (8122-2), Louis Ellis (8123-2) and Don Skinrood (8122-2).

Crash Helmets Needed By Motorcycle, Scooter Riders on Sandia Base

Wearing crash helmets when riding motor cycles or scooters has long been an accepted safety practice. Recently the military formalized this practice by requiring all military personnel and dependents to wear the head protectors while riding their vehicles on Sandia Base.

In view of the obvious safety advantages, Sandia Laboratory employees are being asked to wear crash helmets also.

Sandia Service Awards

10 Year Pins



5 Year Pins

July 9-22

Victor Sirwinski 2441, Carmel Mares 2641, Benjamin E. Bader 1283, Eugene L. Emerson 1222, Jean A. Langston 1240, Lola M. Longenbaugh 4333, Shirley R. Sturges 5331.

SHOPPING CENTER

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

RULES
 1. Limit: 20 words
 2. One ad per issue per person
 3. Must be submitted in writing
 4. Use home telephone numbers
 5. For Sandia Corporation and AEC employees only
 6. No commercial ads, please
 7. Include name and organization.

FOR SALE
 PING PONG set, 3/4" folding plywood table, nearly new, \$35. Deep fryer, \$5. Baling, 1025 Lester NE, AX 9-1346.
 '58 INDIAN Lance Mark II motorcycle, \$175 or best offer. Young, 837 Valencia Dr. SE, AL 5-8193.
 GOLF CLUBS, 8 irons, 3 woods and bag, \$55. Mancuso, AX 9-4279.
 GAS CLOTHES dryer, \$30. Teisher, AX 9-6987.
 PUPPIES AND KIDS: puppies cute, under-termined line; \$5 each; kids, pure Nubians but unregistered, does \$25, buck \$10. Shreve, DI 4-7146.
 2 BDR HOME, lawn, trees, shrubs, workshop, storage shed; \$6200 for equity and \$60 per month for 10 years, FHA available. Smith, AL 5-0623.
 EVAPORATIVE COOLER, portable, \$20; camp cots; new electric fryer-cooker. Cericola, DI 4-4243.
 BOY'S BICYCLE, 20", beginner's wheels included, \$15. Harper, AX 8-0146.
 SADDLE MARE, white, beautiful animal, 3 years old. Russell, AX 8-2439.
 HOMART 20" window fan, two speeds, forward and reverse with timer, \$30. Jones, AX 8-1391.
 2 RUGS, 9 x 12 ft., all wool, Servistan, mauve color, with heavy felt pads, \$50 each. Schafer, AM 8-0288.
 '58 FORD, 1/2 ton P.U. yellow and white, 3 speed, low mileage, will trade equity for panel delivery or station wagon. Norvell, 417 Gen. Chenault NE, AX 8-1482.
 17" TV, GE portable, built in antenna, \$50; tricycle, \$7; four basket chairs, \$3 each. McMaster, AM 8-8062.
 OSCILLATING FAN on stand; full size bookcase headboard; birdcage; trailer hitch for '59 Lark; 4 pr. long plastic drapes, grey background. Ridlon, AX 9-0378.
 '55 BUICK Roadmaster convertible with continental kit, also 1953 Ford. Will sell or trade for station wagon. Keller, AL 5-9805.
 BEDROOM SET, blond with double dresser, night stand, box spring and mattress, \$125. Lindsey, AX 8-0818.
 '56 GMC pick-up truck 6' step-side, V-8 engine, hydraulic transmission, power-traction rear-end, deluxe trim. Newhouse, 2620 Wisconsin NE, AX 9-3978.
 STUDIO COUCH with slip cover, converts to bed, \$30. Jeffers, AM 8-3617.

'51 FORD tudor, heater, overdrive, has new brakes, battery. Fuqua, AX 9-7972.
 MOUNTAIN LOT in Crestwood Manor, approx. 6 miles south on Highway 10, \$850. Sanchez, CH 2-4556.
 CASEMENT TYPE 3/4 ton refrigerated air conditioner, \$75. Conklin, AM 8-7819 after 5 p.m.
 SIX TRANSISTOR radio, pocket-size with earphones, case, \$25. Banos, AL 6-6613.
 BICYCLE, 24 inch. Ruff, ext. 48190.
 WASHING MACHINE, automatic, Westinghouse, \$35. Souder, BU 2-3274.
 KNOTTY PINE gate with 2 x 6" posts, ready to hang on block wall or fence, \$15 cash. Cook, 11109 Morris Place NE, AX 8-0851.
 HEATH SB-10 SSB adapter, wired and new, \$90; Hallicrafter HT-18, VFO, used with the SB-10 for SB operation, \$45. Bales, AX 9-4548.
 '48 FORD V-8 coupe, engine needs rebuilding, good body, tires, radio, heater, \$50. Roberts, AL 5-9527.
 TOWER ENLARGER and complete dark-room equipment including developing trays, daylight tank, 3 ferro tins, thermometer, easel, \$40. Puder, AX 9-2978.
 '53 CHEVROLET 6 pass. station wagon, R&H, power glide. Gregory, AX 9-2461.
 ROSENTHAL BAVARIAN china, complete service for eight, \$100; '53 Ford fordor custom V-8, overdrive, \$400. Pruitt, AX 9-7723.
 3 BDR home, hardwood floors, walled yard, forced air heat, built-in range and oven. Robinson, 320 Espejo NE, AX 8-2244.
 AUTOMATIC WASHER, ABC, \$30. Hopkins-413 Mesilla NE, AM 8-0885.
 HOTPOINT FLAT ironer, \$50; youth bed with mattress, \$6. O'Neill, AL 5-6355.
 AIR CONDITIONER, one ton refrigerated, 110 volt, thermostat control, priced to sell. Linker, 9912 Arvilla NE, AX 9-4057.
 GASOLINE ENGINE, 1 1/2 hp Lawson, w/centrifugal clutch, \$25; boy's 26" bike, needs paint, \$20; 3/4 hp electric motor, \$12.50. Hutton, 1124 Florida SE, AL 5-7435.
 REFRIGERATED AIR conditioner, one ton Vorado, 220 volts, has heating unit and thermostatically controlled, used one season. Weinmaster, 3620 Mary Ellen NE, AX 8-1620.
 '59 CUSHMAN Eagle motor scooter, \$300. Consider trade for '53 Ford eight in good condition. Ryanzak, 1106 Betts NE, AX 9-3527.
 MOBILE RIG, complete with transmitter, converter, TNS, dynamotor, antenna and mount, all cables and relays, \$50. Grab, AX 9-0015.
 3 BDR, 1 1/2 baths, paneled den, 1600 sq. ft., carpet, drapes, AC, fireplace, walled, landscaped. Move in for FHA appraisal. Richardson, DI 4-2511.
 ALLSTATE deluxe motorcycle, 15 hp, 250 cc, good price, extras. White, AX 9-6379.
 '53 FORD V-8 ranchwagon, grey, R&H, \$495. Fears, 932 Monroe NE, AL 6-3956.
 '58 EDSEL convertible, R&H, power steering and brakes, auto. transmission. Heper, AL 5-3244 after 5 p.m.
 14' CONTINENTAL 30 hp Evinrude Lark, trailer, skis and many accessories. Paul, 404 Morningside NE, AM 8-4617.

NEXT DEADLINE FOR SHOPPING CENTER ADS Friday Noon, July 15

VACUUM CLEANER, GE Rollaround with attachments, \$20. Wideman, AX 9-7966.
 MOTORCYCLE, Allstate model 9415, 1959; 18" rotary power mower. Calvery, AM 5-0351.
 OUTBOARD MOTOR, 22 1/2 HP Pitt, older model, \$75. Harrison, 3501 Ruff NE, AX 9-7907.
 BED, bleached mahogany, with mattress and box spring, reasonable. Keever, AX 9-1334.
 OAK TABLE, round, would make cut down coffee table; radio-phonograph combination; overstuffed chair; two bedside tables. Engle, AM 8-4241.
 BALDOR WINDOW exhaust fan, 2 speed, 18" blades, 1100 rpm. Stephenson, AX 9-9114.
 VACUUM CLEANER, Electrolux with all attachments including floor polisher, \$50. Wilson, AX 8-0049.
 EXTRA CLEAN 3 bdr. custom built home, bath and 3/4, built-in range, hdw floors, air conditioning, 1800 down, loan balance, \$15,700. Long, AM 5-0091.
 VAPOR AIR Model 1260, large portable evaporative cooler and stand, nearly new, reasonable. Thornton, AX 8-1290.
 KODAK 16mm movie projector with case, \$30; poker table with folding legs, \$20; Wright evaporative room cooler, \$20. King, 3905 Thaxton SE, AM 8-4731.
 SIAMESE KITTENS, purebred but not registered, males \$15, females \$10. Carpenter, AX 9-3519.
 BOWLING BALL, 11 lb. Brunswick, brand new, \$10. Judy Siede, AM 8-2738.
 MACGREGOR CLUBS, bag, cart, \$45; Heathkit 4-band receiver and Q-multiplier, \$35; tape recorder, \$30; room cooler, \$15. Reinman, AL 6-9737.
 \$1000 EQUITY in 1959 Hillman convertible for \$400 or trade for pick-up or ??? Also miscellaneous to sell or trade. Aaron, BU 2-3124.
 YOUTH BED, \$25. Downs, 1406 14th Loop, Sandia Base, ext. 34293.
 SAMOYED PUPPIES, AKC registered, four weeks old. Merrilat, 618 Sycamore NE, CH 2-4873.
 INEZ BRICK, 3 bdr. 1 1/2 baths, new FHA, low down payment, walled, sprinklers, covered patio with barbecue. Fastle, 7709 Apache NE, AX 9-2750.
 POODLE, AKC registered, excellent for stud, \$30; tape recorder, accessories and tapes, \$40; Admiral 21" TV-radio console, \$65. Hill, AL 6-1931.
 AUTO AIR conditioner, Frigiking, \$100; Sunbeam electric lawn mower, \$25. Cummings, AX 9-5907.
 YEAR-AROUND modern mountain home, one bedroom, detached garage, 1 1/2 acres, 15 mins. from Base, old Highway 66. Miller, BU 2-3243.

'31 MODEL A, 5 window coupe, it will run; also sharp heads, Fenton manifold with carburetor. Pritchard, 1024 Jackson SE, AM 8-6430.
 '55 JEEP pick-up, 4-wheel drive. Turnbough, AX 9-6667 after 5 p.m.
 STROLLER for two with rumble seat, canopy, basket, tray, etc., \$20. Orendorff, AL 5-3126.
 YOUTH BED, must sell, make reasonable offer, complete, natural birch finish. Hoagland, AX 9-7097.
 26" GIRLS bicycle, Rollfast, whitewall tires, light, horn, two speed rear axle, coaster brake. Campbell, AX 9-4830.
 35mm CAMERA outfit, Argus C-4 with case flash attachment, sun shade, auxiliary wide angle and telephoto lens, \$45. Bryant, AX 9-8315.
 DINETTE SET: table 48" x 36", formica top, six chairs, tubular chrome steel construction, \$40. Neece, AL 6-1913.
 20" WINDOW fan, \$18. Ludwick, 529 (c) Vermont NE.
 '59 FORD, 6 cyl., 1/2 ton, 4 speed, 6-ply tires; Ford jeep, motor and running gear completely rebuilt. Kovaschetz, TO 5-7747 or TO 5-9260.
 SWIMMING POOL, 3 Bdr., den, dining, 1 1/2 bath, carpet, drapes, utility room, sprinklers, AC, walled, landscaped. Padilla, 426 Mesilla NE, AM 8-7476.
 CUSHMAN SCOOTER, 3 wheel, 5 hp, \$85; parakeet, cage, stand, 1 yr. old, \$6. Parker, AX 9-9429.
 '56 CUSHMAN Eagle scooter, palmer overhauled, must sell, \$150. Palmer, DI 4-5342.
 CHILDREN'S PLAYHOUSE, 5 x 7', foldable, storybook design, brand new, \$75. Chandler, 4007 San Andres NE, DI 4-6609.
 RANGE HOOD, 40" copper, fan and light, thermostat, 8 ft. pipe and cap, \$40. Scott, AX 9-3412.
 CHILD'S SWIMMING pool, rigid frame, 4' x 6', \$6.50. Russell, 7738 Robin NE, AX 9-6921.
 AIR CONDITIONER, 3/4 ton refrigerated, 110 volt, Admiral, thermostat control, window or wall mount, \$100. Schmidt, AX 9-7305.
 FRIGI-KING air conditioner for 1958 thru 1960 model cars, \$225; 1958 Chevrolet Impala, standard transmission. Geilenfeldt, AL 6-7357.
 REFRIGERATOR, 11 cu. ft., \$75; Baby Tenda, \$10; Teeter Babe, \$3; Kenmore automatic washer, \$70; Florence gas stove, \$20. Morgan, AL 5-8863.
 ROBERSON 3 bdr., paneled den, fireplace, corner lot, double garage, drapes, built-in stove, enlarged bedrooms, \$19,900, terms. Ault, AX 9-3148.
 TENT, 9' x 9', \$15; car evaporator air cooler, 6 volt, air blower, \$10; gasoline stove, 2 burners, burns white or regular, \$10. Windham, AL 6-9455.
 REFRIGERATED AIR conditioner, window type, one ton, used three months, cost new \$160, will sell for \$80. Ray, AX 8-0408.
 KENMORE 1957 model automatic washer, \$40. Sisler, AX 9-0963.
 '57 PICKUP truck, Owen sports wagon, 20 mpg, 6 cyl., 70 mph, fishing rod tube, trailer hitch, customized on Plymouth chassis, \$495; Baxter, 1610 Boyita Lane NW, DI 4-7601.

BABY CRIB, youth seat, training seat, all for \$20. Cox, AX 9-4288 after 5 p.m.
 BICYCLE, 26" boy's Higgins, balloon tires, \$20; thermos ice bucket, new, leather-brass, \$5; scout sleeping bag, small, 2 1/2 lb. \$4. Mitcham, AX 9-8425.
 POWER MOWER, 18" reel type, 4 cycle, Briggs and Stratton engine, \$20. Cotter, AL 6-0326.
FOR RENT
 SE HEIGHTS home, newly painted inside and out, \$80 per month with one year lease. Cordova, CH 7-8137.
 APARTMENT, \$70 furnished, tile bath and kitchen, garage, 421 South 12th, Country Club District. Everitt, 410 Richmond Pl. NE, AL 6-3703.
 TRAILER SPACES in cool Sandia Mountains. Less than 30 minutes driving time during rush hours. \$20 per month. Souder, BU 2-3274.
 3 BDR House, 1 1/2 baths, Snow Heights, carpeted, air conditioned, stove and refrigerator furnished, \$115 monthly on lease. Wright, AX 8-0287 after 5 p.m.
 MAN TO SHARE 2 bdr. furnished house at 1900 Madera, rent and utilities run approx. \$52. Kanode, AL 6-1858.
WANTED
 SPRINGFIELD rifle, 1903A3 issue stock in very good condition. Taylor, AL 6-3774.
 RIDE from Ridgcrest-Holly vicinity to Sandia beginning early July. Courtin, 4635 Idlewild SE, AM 8-0065.
 GIRL'S BIKE, 20" in good condition. Schroll, AX 9-9142.
 ICE CREAM freezer, wooden bucket type, 1 gallon capacity. MacPherson, AM 8-8925 after 5 p.m.
 BABY stroller. Fidel, AL 6-1646 after 5 p.m.
 FEMALE POODLE, registered, either grown or pup, miniature or toy. Becker, AX 9-2539.
 RIDE from 7th St. and Mountain Road to Bldg. 887. Baca, 1423 7th NW, CH 2-5536.
 RIDE wanted from 2817 Carol NE to Bldg. 844. Will walk to Candelaria and Eubank. Carlson, AX 9-6610.
 GOOD HOMES for three puppies, "Inky's Specials," six weeks old. Shelton, AX 9-7719.
 PORTABLE EVAPORATIVE cooler, inside type for cooling one room. Federaro, AL 5-3677.
 HOME WANTED for small black female pup I found in campground near Red River. Stark, 1334 Marron Circle NE, ext. 49241.
FOR SALE AT LIVERMORE
 COOLER, portable, evaporative, large fan, \$20. Resemius, HI 7-3011.
 '59 FORD Galaxie, V-8, 2-door hardtop, power steering, R&H, 225 h.p., 9200 miles; North Hill regulator, with tank, \$100. Ayn, HI 7-3834.
 AIR-CONDITIONER-HEATER, Mitchell, 3/4 ton, for window or wall, \$125; electric stove, 24 in., \$40 or best offer. Terrell, Ext. 2348.
 '57 FIAT, conv. sport coupe, 1200 cc, limited model, \$1550; horse, pinto, white with blue spots, 7-yrs. old, \$245. Pegan, HI 7-0357.



NEW CONTAINERS for classified waste are now available in General Stores and self-service stock rooms. June Peebles of Security Standards and Development Division 3231 demonstrates proper use of the red and white sacks which must be locked up.



WAVE BARRACKS, which served as a home away from home for Helen Bond (8224-2) during World War II, formerly occupied the site on which Livermore Laboratory's administration building now stands. Old photo (inset) shows Helen on barrack's steps. Picture of barracks was taken shortly before it was torn down.

Livermore History . . .

Helen Bond Rigged Parachutes for U.S. Navy Where LRL Now Operates AEC Laboratory

A sea of Waves once engulfed the spot where Livermore's building 911 now stands—about 120 Waves to be exact. So recalls Helen Bond (8224-2), who was among the Navy contingent of servicewomen stationed in a barracks located there during World War II.

The Lawrence Radiation Laboratory, across the street from Sandia's Livermore Laboratory, now occupies the grounds and buildings which formerly based the Livermore Naval Pre-Flight Air Station. The Naval facility was operated with about 600 personnel. The Waves on duty with the group were based in the barracks building, which was then the sole structure on the Livermore Lab-

oratory side of the road.

Helen, a Seaman First Class at the time, worked as a parachute rigger's assistant at the base in 1943 and 1944. "We could have a parachute folded, packed and ready to go in 20 minutes," she says. Occasionally, she was a passenger on test flights over nearby hills. Dummies with chutes attached were dropped to test the results of their efforts.

At the time she was stationed in Livermore, Helen recalls the town itself had a population of about 3,000. "The only transportation available then," she says, "was two Livermore taxicabs, and the Navy bus, which made one trip to town in the morning and

one in the afternoon."

Big, wide fields surrounded the Wave barracks, and Helen used to play on the girls' softball team in the area where building 916 now stands.

Helen joined Sandia's Livermore Laboratory in November 1959, and can view the changed scene with the eyes of a traveler returning home. Where once was an open field, paved parking lots and landscaping now cover the terrain. Where the old barracks once stood, an imposing steel and concrete building has risen. Except for the wooden buildings at LRL no sign remains of the Livermore Air Station.

ISA Elects Sandians 1960-61 Directors

Albuquerque Section of the Instrument Society of America recently elected officers for the 1960-61 season. Sandians now holding office include J. D. Patrick, Jr. (1614), vice president; J. H. McCutcheon (1322), secretary; E. L. Deeter (2440), national delegate, and C. F. Martin (1626), alternate delegate. Howard Zorn of Minneapolis-Honeywell was elected president.

The schedule of next season's meetings, tours and seminars will be announced later this summer.

Patent Office Personnel Need Wide Knowledge in Many Fields

When considering the wide variety of inventions submitted to Sandia's Patent Department, it's easy to understand why the men working there must have more than a slight knowledge in many fields.

Inventions may be made in the fields of electrical, mechanical or chemical engineering or in the physical sciences. For even a preliminary appraisal of a new idea it is necessary to have an understanding of what may be a very complicated device or method.

Every employee of Sandia Corporation at the time of hiring is required to sign a paper assigning to Sandia Corporation all rights to any invention made during his period of employment with Sandia. This is in line with the practice followed by many other government agencies and by many large private firms.

However, if the idea bears no relation to Sandia activities and was developed at home with your own time, materials and facilities, the invention may fall outside this agreement.

You May Be An Inventor

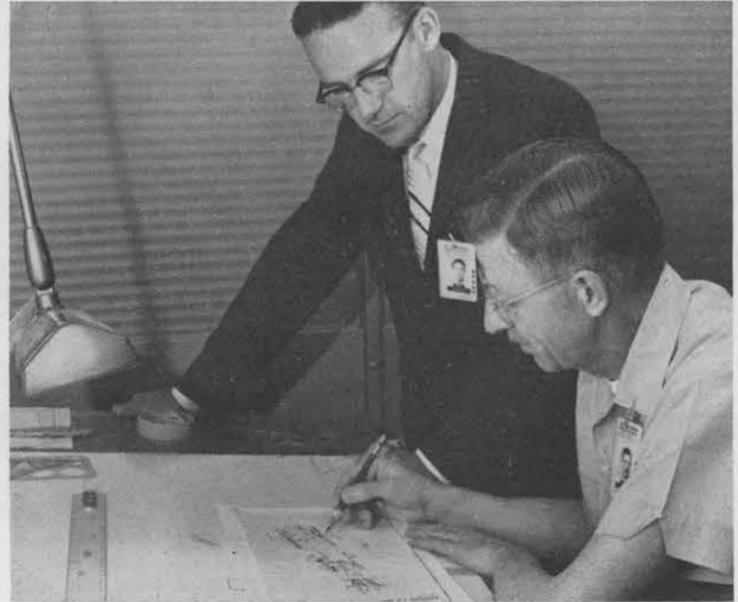
If you have devised any new and useful process, machine, article of manufacture, or composition of matter, you may be an inventor. The first step at Sandia for reporting such an invention is to record the idea in an engineering notebook, sign and date your entries, and have two people who have read your description and who understand your idea, sign their names as witnesses.

The invention is then described on a Record of Invention form and submitted to the Patent Manager (6010), R. N. Betz, who has served as Sandia's patent attorney since 1957. The form has space for a description of the device or method, and for any diagrams, drawings or sketches which may further explain the invention.

The inventor may also tell why he considers his invention new or unique, how it improves prior devices and methods, or in what way it provides a solution to a particular problem.

Formal Description

This form is examined by Gene C. Newlin, who has been working with patents since 1953 with Sandia Corporation and prior to that for seven years at Los Alamos. If he feels that the idea may involve a patentable invention he



PATENT MANAGER R. M. Betz studies a diagram being completed by L. F. Jacot, a patent draftsman, of an invention. Such diagrams are generally part of a detailed form description submitted by Sandia Corporation to the AEC patent attorney.

will help you prepare a more complete and detailed formal description.

L. F. Jacot, a patent draftsman since 1944, will prepare any drawings or diagrams necessary to emphasize the inventive features of the idea according to the requirements of the U. S. Patent Office. He also renders valuable editorial assistance to Mr. Newlin in coordinating with the inventor in presenting a formal disclosure.

At Livermore Laboratory, J. D. England (8233) serves as a liaison between the engineers and other inventors and the Patent Manager. Mr. Betz or Mr. Newlin visit Livermore frequently to personally talk to the inventors and consider their devices.

Submitted to AEC

The invention description is submitted to the Patent Attorney for AEC/ALO, who takes it up with AEC Patent personnel in Washington. These organizations study the idea from various aspects, for example, to see if it is covered by issued patents or is already in use elsewhere.

If the invention seems promising, the AEC may decide that a U. S. patent application should be prepared on the invention. Consideration is also given by the AEC as to whether a patent application should be filed on such inventions in foreign countries.

Report Promptly

It is important that Sandia employees report promptly any discoveries and improvements. The Corporation and the Government may be protected this way against possible loss of rights on ideas developed here. Such discoveries and improvements may then be made available to the public in the form of patents, which are valuable scientific and technical publications. Inventions of classi-

Bow 'n Arrow Experts Have Their Opportunity For California Deer

Livermore Laboratory sportsmen can bring home the venison beginning July 23—if they are sharpshooters with bow and arrow.

The California Fish and Game Commission has announced an early 1960 deer season to begin on July 23 and end August 1 for archery enthusiasts. Bear will also be fair game during this hunt. A late season for archers will be held September 10 through 19.

An early deer season using conventional weapons begins August 6 and ends September 25, while a late season starts on September 24 and lasts until November 6.

Several pheasant seasons will open throughout the state, the first one beginning November 12 and the last one ending December 11. Three quail seasons will run from October 29 up to January 2.

fied nature may be submitted in similar fashion and are reviewed periodically by the AEC for possible de-classification.

Even if the invention doesn't reach the patent application stage there is still a degree of recognition given the inventor for his efforts. When the Sandia Patent Department approves an invention a memo is sent to the inventor's Department Manager and a permanent record is made in the employee's personnel file. At various stages additional notifications to supervision are made.

Seek Construction Bids for Building In Sandia Area 'Y'

Bids are scheduled to be opened this week for construction of a prefabricated steel building in Sandia's Area "Y," located between Coyote Test Field and Area III, the AEC has announced.

Designated Bldg. 9926, the structure will be used by Physical Research Department 5130 as a laboratory and shop to support explosive to electric transducer studies.

The building will contain about 850 sq. ft. of floor area on a concrete slab. Utilities and concrete walks will be installed.

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

Mountain Club Plots Two Climbs

Two climbs in the Sandias are planned by the New Mexico Mountain Club for members and guests during the coming weeks.

On Sunday, July 10, the Del Agua canyon trail will be taken from Juan Tabo bowl, up over a saddle into a valley on the western slope of the main Sandia range.

Frances Strachwitz (3421-1) will lead a trip up Cienega Canyon on the east side of the Sandias on Saturday, July 16. Both trips start from Nob Hill at 7 a.m.

On Tuesday, July 12, a general meeting will be held at 8 p.m. in Odium Hall in the Radiation Therapy Building. Movies of rock climbing on Shiprock will be shown.

July 15 Deadline For Entering Sandia Tennis Tourney

Tennis, anyone? Anyone interested in participating in Sandia Laboratory singles and doubles tennis tournaments, is urged to contact Services and Benefits Division 3122, ext. 29157.

Deadline for entries is July 15. Matches will be played on Sandia Base courts.

Sandia's Safety Record

Sandia Laboratory HAS WORKED 12,785,000 MAN HOURS OR 355 DAYS WITHOUT A DISABLING INJURY

Livermore Laboratory HAS WORKED 3,387,000 MAN HOURS OR 1601 DAYS WITHOUT A DISABLING INJURY