



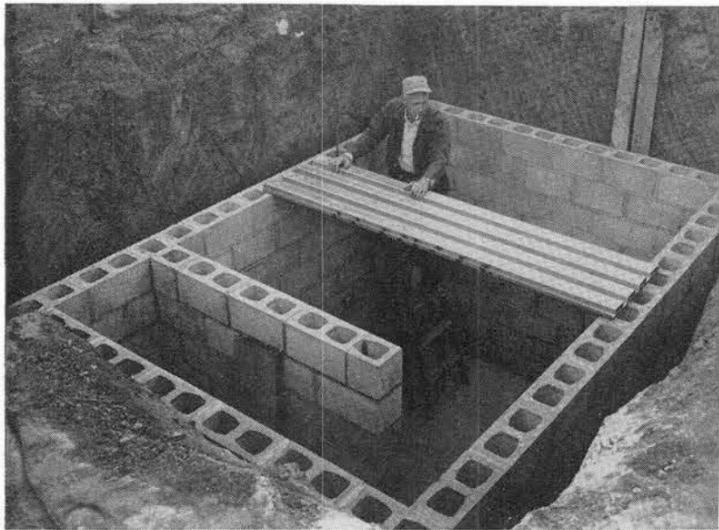
SANDIA CORPORATION LAB NEWS 1961

noel

Editorial Comment

Holiday Hazards—Remember Them

Christmas is only a couple of days away. This is the time for happy greetings, pleasantries, and good fellowship. May we throw out a sobering thought. Accidents will cast a shadow over many a household this holiday season. Don't let it happen to your home. Fire is a hazard, driving is a hazard, overexertion is a hazard. Have a happy holiday. Have a safe holiday.



CHUCK PIGNOLET (8161-2) adjusts one of the steel ceiling supports on his fallout shelter before topping it off with six inches of reinforced concrete and two and one half feet of earth. The shelter is designed to meet Civil Defense specifications.

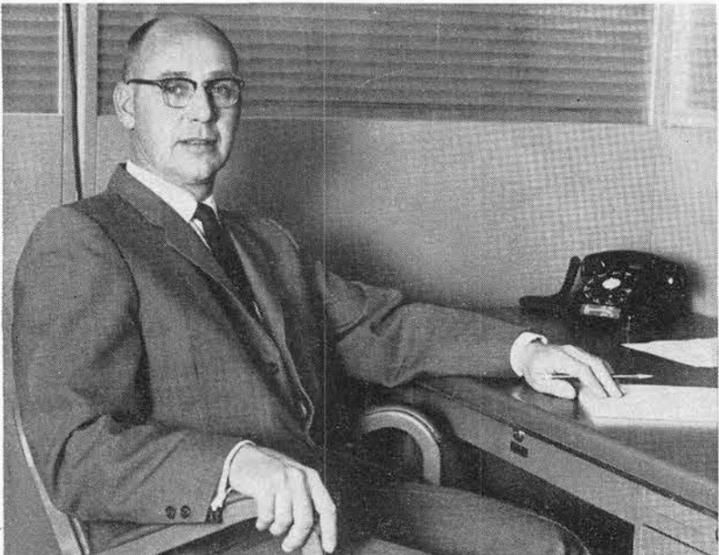


DIGGING a ten-ft. deep hole to house a fallout shelter for his family is Ben Guerin (8161-3). Ben plans to build the eight-man shelter entirely by himself, and expects to complete it next spring. The diggings shown represent about a month's spare time work.

Sandian Who Serves

C. E. Roehrig Heads Directors of New Mexico Cerebral Palsy Group

This is another in a series of articles describing the community activities of Sandia employees. Charles E. Roehrig is currently serving a one-year term as president of the board of directors of the Cerebral Palsy Association of New Mexico. This 20-member state organization works closely with the New Mexico Rehabilitation Center in the care and treatment of palsied children. Chuck's interest in the association was generated by his work with the local fund-raising telethons in 1959 and 1960. He was chairman of the 1959 telethon and in this capacity supervised all volunteer workers, and lined up talent and entertainment for the marathon show. In 1960 he served as the telethon adviser. With funds raised by the association, complete medical support and out-patient treatment at the Albuquerque Rehabilitation Center is provided, pre-education classes to prepare afflicted children for kindergarten and grade school are conducted, and a public education program on cerebral palsy is promoted. Chuck works in Component Test Data Section 3453-1 and has been at Sandia nine years.



Charles E. Roehrig (3453)
—helps handicapped children—

Livermore Fallout Shelters Have Dual Use—One Replaces Pool

Ben Guerin (8161-3) wasn't looking for buried treasure when he started digging a hole in his back yard recently. Instead, he was excavating an area for a family fallout shelter.

Ben is one of three Livermore Lab Sandians building shelters. The others are Chuck Pignolet (8161-2) and Betty Vineyard (8212-1).

"The work is going a little slower than I had planned," said Ben, who is building the shelter in his spare time all alone, "but I expect to have the whole thing finished in the spring. It will be a plan similar to one shown in the Civil Defense pamphlet, 'The Family Fallout Shelter'."

Ben started digging in October and expects to begin construction on the eight-man shelter by the end of December. The cost will be about \$600. The family also plans to use the shelter as a fruit cellar.

Chuck Pignolet is also a "do-it-yourself" builder. Although he paid for the excavation, Chuck built the shelter himself with the help of neighbors in about six weeks' spare time. When completely equipped, it will cost approximately \$675 and will accommodate six. Like Ben's, it is a modified plan from the Civil Defense pamphlet.

"The shelter has about 64 sq. ft. of living area," said Chuck, "and is six ft., nine in. high on the inside. The floor is poured concrete and the walls are 8-in. concrete block. The top of the shelter consists of steel panels with six in. of concrete poured over them. On top of this is two and a half ft. of compacted earth."

Chuck will install an underground 55-gallon water tank next to the shelter, and will have an automotive type 12-volt generator-battery system for electrical power. Filtered air vents will have both hand operated and electric-driven blowers for proper air ventilation.

"We plan to equip the shelter with collapsible furniture, radiation detection equipment, transistor radio, and at least a two-weeks' food supply," Chuck added.

Like many shelters, Betty Vineyard's will serve a dual purpose. "My two teenage boys want to use it as a club house," she said. The Vineyard's shelter was built by a contractor from original plans at a cost of \$2000. It displaces the family's back yard swimming pool.



Sharon Gauerke (3422)

Take A Memo, Please

Watch out for safety hazards during the holiday season.

Congratulations

- Born to:**
Mr. and Mrs. Lynn Ridsdale (4631-2) a son, Greg Lee, on Nov. 14.
Mr. and Mrs. Reynaldo Gonzales (4612-1) a son, John David, on Nov. 25.
Mr. and Mrs. Roy Hunter (4152-2) a daughter, Jeanette Irene, on Dec. 8. Patsy was formerly also with 4152-2.
Mr. and Mrs. Marcel Reynolds (7311-1) a daughter, Teresa, on Nov. 24.
Mr. and Mrs. Terry L. Beckley (4111-2) a daughter, Elizabeth Eakin, on Dec. 6.
Mr. and Mrs. John W. Kane (2451-1/5150) a son, John Steven, on Dec. 7.
Mr. and Mrs. J. E. Truskowski (2564) a son, Brent, on Nov. 30.
Mr. and Mrs. I. M. Scott (2542) a daughter, Susan Deborah, on Dec. 5.



EMERGING from an inspection of her recently-completed fallout shelter is Betty Vineyard (8212-1). Remains of backyard swimming pool, which was replaced by the shelter, show in rear. The shelter will easily accommodate her family of four.

Weddings

Joyce Graves was married to John Barefoot of Albuquerque on Dec. 2 in a double ring ceremony at the First Presbyterian Church. Joyce, who works in Division 6011, has been at Sandia since June 1960. The couple took a wedding trip to California.

January 6 has been set for the marriage of Jean Heidenreich (3153-2) to Paul Delker (3131-1). The marriage vows will be exchanged at St. Bernadette's church. After a honeymoon the couple will be at home at 1420 Morris NE.

Jean has been at Sandia since October 1958 and Paul has worked here since August 1958.

Rare Occasion—Two Sandia Hunters Get Bighorn Sheep

M. D. Bennett (7131) and W. J. Haskell (7133) were the only two out of 20 hunters to successfully get Rocky Mountain bighorn sheep during the recent nine-day season in New Mexico.

The State Game Department has been trying to build up the herd and, therefore, issues only 20 permits each season. The current season was only the third one scheduled in the past 75 years.

The two Sandians began scouting the Sandia Crest area on week-

ends after their licenses were granted in August.

Dwayne killed his 31-inch, full-curl Bighorn at 10 a.m. on the first day of the open season. Walt watched his sheep for three days, off and on, before he shot him on the fourth morning. His animal had a 27-inch horn length with a three-fourth curl.

Willis Mason Died Dec. 14

Willis Mason, a Sandia Laboratory employee for 13 years, died unexpectedly Dec. 14. He was 35.

Mr. Mason was a Staff Assistant in Illustrated Parts Breakdown Section 2322-3.

Survivors include his widow and two sons, Willis, 8, and Milton, 5.



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5-Kiloton Nuclear Detonation Climaxes Project Gnome Test

Months of intensive preparation for Project Gnome were climaxed Sunday, Dec. 10, at noon with the successful detonation of a five-kiloton nuclear device. The shot took place 1200 ft. below the earth's surface in a salt deposit 25 miles southeast of Carlsbad, N. Mex.

Scientists and engineers from Sandia Corporation were responsible for measuring particle motion, temperature, and pressure of the blast; making microbarograph measurements; and measuring electromagnetic radiation. Sandia accelerometers and velocity and displacement gauges measured strong earth motion near the detonation point, and seismographs measured weaker pulses at other stations.

"Our measurements of the detonation and earth motion were successful," A. D. Thornbrough (7251-1), project leader for Sandia's activities, commented. "Data gathered from the measuring instruments are now being reduced and interpreted."

The nuclear detonation, scheduled for 8 a.m. Sunday, was postponed until noon because patches of haze obscured the visibility of the ground-zero area, and a light wind was blowing in the general direction of Carlsbad. By noon, the wind had shifted favorably, and the zero area was clearly visible from the control facility and observation point, 4.5 miles away. As the countdown proceeded, three helicopters circled the detonation area to observe effects of the blast.

Visible Shock Waves

The detonation produced a visible circular shock wave above the earth at ground zero and moderate earth shocks at the observation point. A contaminant tank near the zero point was visibly shaken by the blast, and one side of the radio-chemical sampling equipment directly above zero was tipped up approximately 18 in. by earth motion.

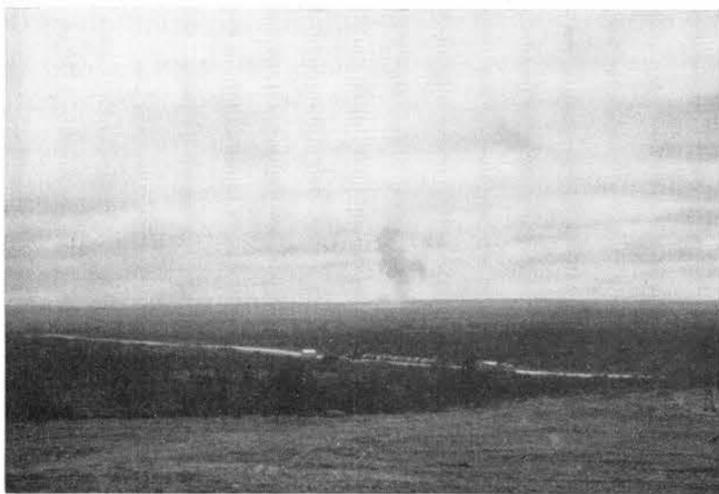
A high-explosive charge, to be used for off-site microbarograph calibration, and scheduled for detonation five minutes after the nuclear shot, exploded prematurely one-half second after the nuclear detonation. Reasons for the premature HE detonation are undetermined, although scientists speculate that it was caused by the surface shock wave shaking the firing relays.

Shortly after the nuclear detonation, radiation monitors indicated that vapor venting from the tunnel shaft head was carrying a small amount of short-lived radiation into the air. Speculations were that the gasses may have escaped from the detonation area into the tunnel through plane fractures between the salt in which the shot took place and the Rustler claystone present in the overburden. During the venting, precautionary measures were taken to protect observers of the shot from possible radiation hazards. By Monday, leakage of the vapor from the tunnel had decreased to a trickle, and project employees were working in the zero area without protective clothing.

A team of Sandians was the first group to enter the area via helicopter after the detonation. The group, comprised of G. W. Burnside, T. J. Flanagan, J. A. Kastening, D. B. List, A. D. Thornbrough (all 7251-1); W. D. Weart (5112); and R. J. Beyatte (7241-3), inspected instrumentation and gathered available data five minutes after the shot.

Drilling Started

The presence of the predicted sealed chamber at the end of the Gnome tunnel is presently undetermined, although scientists reported Tuesday that there had been no unusual geophone signals from the shot cavity vicinity, indicating that a sealed chamber may have been formed. Drilling into the cavity area has started, and scientists will soon be able



HIGH EXPLOSIVE detonation marks the vicinity of Project Gnome surface ground zero point shortly after nuclear detonation 1,200 ft. below the earth's surface near Carlsbad, N. Mex.



DR. EDWARD TELLER, Professor at Large, University of California, answers questions about Gnome detonation at press briefing immediately following shot. About 400 observers attended the event in Carlsbad, New Mexico, Dec. 10.

to determine the presence of a chamber as predicted.

The condition of the Gnome tunnel is also largely undetermined. A geophone and a radiation monitor near the shaft end of the tunnel are in unimpaired operation, indicating that the tunnel area farthest from the shot room has not collapsed.

Within 30 minutes after the Gnome shot, the bulk of earth-motion data had been gathered. The data will be used to determine characteristics of an underground nuclear detonation in salt—a material with marked differences from the volcanic tuff of the Nevada Test Site.

The neutron cross-section measurement experiment also went well. The neutron-wheel equipment used to gather data on different energy neutrons from the detonation was reported to be intact after the blast. Recovery of the equipment will probably be attempted soon, since the half-lives of some of the radioisotopes gathered by the equipment are relatively short.

Recovery Program

The radioisotope recovery program was also reported to be successful. Filters from radio-chemical sampling equipment were scheduled to be removed from the shaft area on Tuesday. Removal of the filters, which are located in the shaft six feet below the surface, will make possible lowering of temperature and recording instruments into the tunnel.

Two holes are being drilled into the cavity area as part of the power measurement experiment of Project Gnome. One will be used to pump water into the cavity; the other will be used to bleed down cavity pressure and draw off steam for processing through the power-measurement equipment.

The five-kiloton nuclear device used in the Gnome detonation was designed specifically for applications in various aspects of the

Plowshare Program. Its yield was estimated by scientists who observed the effects of the detonation to be five kilotons, as anticipated.

The Gnome shot was witnessed by some 400 observers, including scientists, government officials, newsmen, and residents of the Carlsbad area. Along with American observers, visitors from Canada, Australia, England, the Philippines, Japan, France, Sweden, South Africa, Denmark, and Mexico attended the event.

Sandia Groups Set Dec. 25 as 'Project Charity' Target Date

Project "Christmas Charity" will have a target date of Dec. 25 with most Sandia organizations already dividing and packaging food, clothing, and toys for delivery to needy families.

The projects of varied nature are undertaken in lieu of exchanging holiday greeting cards with co-workers. In addition to those charity projects already announced in the past two issues of the Lab News, others nearing completion are:

Help All Faiths Home

Personnel in Business Methods Department 4110 have selected the All Faiths Receiving Home as their Christmas project for 1961. Contributions will be made directly to the home.

Electronic Data Processing Department 3450 employees are donating money, clothing, bedding and baby furniture to All Faiths Receiving Home.

Division 3441 and 3446 are joining together to adopt a family for Christmas.

Aero- and Thermodynamics Department 7130 employees have donated \$50 to the All Faiths Receiving Home. They also collected shoes, topcoats, and other clothing, which were delivered to the Bernalillo County Welfare Department.

Christmas Baskets

Members of Packaging-Shipping and Commercial Inspection Division 4624 decided to collect items for a Christmas basket to be presented to the family of Julian S. Torrez, an employee in the division who died in Belen, Nov. 17. Mr. Torrez, who was 31, had been at Sandia 11 years. He is survived by his widow and five children ranging in age from one to nine.

Control Department 4210 is planning to brighten the Christmas of a family of six. The head of the family is self-employed and not on the welfare rolls, but nevertheless needs assistance. Food, clothing, and money are being collected. The committee handling arrangements is headed by Charles Horner, Horace Montoya, and Benny Gallegos.

Administrative and Traffic Department 4330 and Assistant Purchasing Agent, Commercial Department 4360 have taken up cash donations to be given to All Faiths Receiving Home.

As in past years, Organization 1100 is making a contribution to charity in lieu of exchanging Christmas cards with fellow employees. Each division secretary is accepting contributions which may be earmarked for one of the

following: All Faiths Home, a needy family, or Employees' Contribution Plan.

Members of Cost and Accounting Department 4150 decided this year to assist the electricians and machinists at Sandia Laboratory in making a happier Christmas for the pupils of River View Elementary School. Each member of the department was given the name of one of the youngsters. A gift was purchased for the specific student. The Christmas-wrapped gifts will be taken to the school by Santa Claus tomorrow and be distributed. There are 400 children enrolled in the elementary school.

Environmental Testing 7300 employees, at both Bldg. 860 and Area III, have collected more than \$100 to help a needy family. The head of the family was killed in a hit-and-run accident recently. The money will be used to purchase food and warm clothing for the widow and six children—ranging in age from seven to 18. In addition, an individual gift (mittens or something similar) will be given to each child. Chairmen for the project have been James Poore and Philip LaPoint (both 7312-1).

7200 Projects

Field Testing organization 7200 is collecting money to be used for two worthy projects. Half of the money will be used to purchase Christmas baskets for needy families in the Tijeras school district. The balance of the fund will be earmarked for the hot lunch program at the A. Montoya School in Tijeras. R. C. Spence (7243), chairman of the Christmas drive, said, "We have helped the hot lunch program for several years and find our money goes a long way. This is the only decent meal some of these children get."

Physical Research Department 5130 is also collecting money which will be used for a "worthy cause."

Members of Personnel Research, Training and Education Department 3130 are conducting a Christmas drive for clothes, money, and food for the needy.

Santa Donates Pay

The Santa Claus who listened to the pleas of Livermore children for the past two weeks was "Jolly Jim" Henderson (8224-2). Jim played the part evenings and weekends in a costume made for him by his wife. The pay he received from local merchants was donated to the Crippled Children's Hospital in Oakland.

To all of you in Sandia Corporation and to your families, our best wishes for a Merry Christmas and a Happy New Year.

S. P. Schwartz

R. W. Anderson

J. C. Dacey

F. W. Draper

Shirley Fowler

Burn and Biggs

R. A. Bee

Ray Powell

W. H. Campbell

J. C. Childs

Livermore Lab Programmers 'Feed' Two Hungry Computers - IBM 7090 and 1620

"The machine is hungry," Bert Barker says. "It can devour a major problem in about five minutes. Then it gives an answer which took days to program."

Bert is referring to either the IBM 7090 at the Lawrence Radiation Laboratory or the smaller IBM 1620 operated by Section 8142-1. The Section handles Livermore Laboratory's Reliability and Computer Services functions.

"Our four programmers feel a little outnumbered at times," Bert says, "but our backlog of problems has remained manageable."

The programmers—Freddy Whitworth, Jim Rogers, V. K. Gabrielson, and Judy Gehring—write the logic and mathematics necessary to solve scientific problems running the gamut of areas of interest in the Laboratory. They also serve as mathematical consultants to Laboratory technical groups. Another math consultant in the section, A. W. "Mickey" McKinney, works primarily on systems analysis problems, but is available for consultation on other kinds of theoretical and complex problems.

Currently "in the mill" are a number of projects. They are programming a numerically controlled milling machine and design considerations of a product equipment acceptance machine. Also being programmed are systems analysis problems in the area of feasibility of new weapon designs, and structural analysis of designs with heat flow complications. They are programming problems in thermodynamics, water impact, shock, trajectories, etc.

Computers Don't Think

"Some people have the idea that a computer is some sort of brain," Bert says, "but it cannot make a decision or arrive at a conclusion. A programmer must first define the problem, decide how to solve it, construct the logic, write the necessary mathematics, and finally write the instructions for the machine. This is the program."

Most of the problems are solved on the IBM 1620 computer located upstairs in Bldg. 912, Rm. 231. This is a fast, flexible computer designed for research and development applications. Fed by cards,



PROGRAMMERS Freddy Whitworth and Judy Gehring read output from IBM 1620 computer at Livermore Laboratory. Both are employees of Reliability and Computer Services Section 8142-1.

the machine can perform 30 types of mathematical operations on any data fed into its 20,000 positions of core storage.

"However," Bert says, "we do have problems that require the greater capacity of the IBM 7090. Sandia has made arrangements to use this machine at LRL. We prepare our programs and arrange for time on the 7090."

Programmers write instructions for the computer in a symbolic mathematical language called "FORTRAN." These are fed into the computer where another internal program converts it into machine language.

Some programs can be written in a few minutes in FORTRAN language while others might require several days. This depends on the complexity of the problems and information desired.

Reliability Studies

Section 8142-1 is also responsible for reliability studies at Livermore Laboratory. The science of statistics is used to compute performance of components and assist in experimental design. This science determines the number of production samples to be pulled from a run and given a series of performance, stress, and environment tests plus final testing to destruction. From these test data, figures are compiled which represent the quality of the entire production run of the item. These figures are useful in arriving at a reliability prediction for Livermore

Laboratory-designed systems.

"This is one of our primary missions in the section," Bert says. Working in this area are Kaz Ichikawa, Chuck Thomas, Bill Landt, and Herb Turnbull.

"This along with our mathematical computer service to the project groups at the Laboratory keeps us busy. Still, we try to keep up with the 'state of the art.' We look at new programming techniques and modify existing programs."

Programming Course

A course in FORTRAN programming is currently being offered to a group of about 25 Livermore Lab engineers. "More and more," Bert says, "engineers are coming to use the computer in their everyday work. Many repetitive routine problems can be solved on the computer quickly. FORTRAN makes it possible for engineers to write their own programs and get an answer to a problem in a matter of hours."

"The computer also makes it possible for engineers to solve problems that otherwise would go unanswered. Our group is here to serve as informal consultants on these problems. Primarily, the computer is here for the use of the engineers. We see that they get full value."

Additional classes in FORTRAN are planned. Any Livermore Lab engineer interested in mastering the technique should contact Bert, ext. 2207.

Supervisory Appointments

PERRY V. DAVIS to supervisor of Engineering Methods Section 4111-1, Business Methods Department.



Perry has been in Business Methods since he started with Sandia in November 1957. For the previous five years he worked in Civil Service at Wright-Patterson Air Force Base in Ohio.

Perry received his BA degree in political science and sociology from the University of Pittsburgh and has taken graduate work at Ohio State University and the University of Oregon, where he also was a teaching assistant.

During World War II, Perry was stationed with the Army for two years at Los Alamos. He was recalled to active duty during the Korean conflict.

Perry is a member of the American Institute of Industrial Engineers, Pi Sigma Alpha, sociology honorary, and Phi Eta Sigma, scholastic honorary.

160 Persons Tour Sandia Facilities During November

Visitors to Sandia Laboratory in November included high school science teachers, University of New Mexico students, employment candidates, and members of the Association for Computing Machinery and the American Society of Mechanical Engineers. Altogether a total of 160 persons toured various Sandia facilities during the month.

Community Relations Division 3433 arranges the tours and plans them so that each group sees the facilities in which it is most interested. Members of the computing group, for example, saw Sandia's 7090 and 1604 computers in Bldg. 880, while ASME visitors toured the Glass, Ceramics, and Plastics Shops.

All of the groups are taken to the Sphere of Science to see the scientific and technical exhibits and "The Sandia Story."

No job is so important and no service is so urgent that we cannot take time to perform our work safely.

JOHN M. HART to Buyer 4321-1, Subcontract Department II.



John has been at Sandia since April 1952. He worked first in the production organization, was a technical writer for two years, was a TDSR for the Director of Electronic Component Development, and has been in Purchasing for the past two years.

His previous work experience includes one year in Civil Service at Sandia Base.

John received a Bachelor's degree in business administration and a BS degree in health and physical education from the University of New Mexico.

He was on active duty with the Army for three years.

Welcome Newcomers

Dec. 1-15	
Albuquerque	
Frances M. Brokke	3452
Charlotte M. R. Cast	3113
Violet A. Donaldson	3126-1
R. W. (Mike) Fitzgerald	4574
Rose M. Griffin	3126-1
Juanita M. Van Jelgerhuis	4333
John R. Watkins	7183
Iowa	
Samuel C. Levy, Ames	1323
Kansas	
O. Gene Bates, Kansas City	1411
Jerry T. Love, Kansas City	1422
New Mexico	
Garth R. Fahrback, Los Alamos	1413
Ohio	
Richard J. Baugham, Euclid	5132
*Denotes rehired	
Returned from Leave	
Mary L. Ward	4413

R. E. Ridenour to Retire This Month

Ralph E. Ridenour, a Sandia employee for 13 years, will retire at the end of December. He has worked in Nomenclature Division 4424 for the past eight years.



Mr. and Mrs. Ridenour have already sold their Albuquerque home and are making an apartment their temporary home base. In January they plan to travel to southeast Texas near Brownsville to visit Mr. Ridenour's brother and sister.

"I lived in that area once and know where all the good fishing holes are," Mr. Ridenour said.

After three or four months there, the Ridenours hope to take a trip to the Pacific Northwest to visit the Seattle World's Fair and other points of interest.

Sandia Service Awards

15 Years



Elsworth P. Hubbs
7522
Dec. 30, 1946

10 Years

Dec. 23 - Jan. 5

Carrie Nelson Vick 4135, Laverne E. Du-
mond 4511, G. T. Kleindienst 4213, Theodore
E. Smart 7311, Theresa C. DeBaca 4423, Jose-
phine Sandusky 7520, Carl L. Hawk, Jr. 3463,
Procopio L. Lopez 4212, Ophis M. Guest 4513,
Eugene L. Drake 4543, Bill H. Moss 3242,
Shirley M. Meloche 4613, Hazel M. Smeltzer
3462, Martin W. Hansen 4631, George Neu-
feld 4581, Dorothy M. Wall 3446, Maurice S.
Chavez 4132, Jacob Castillo 2643.
Wallace R. Mitcham 4542, Dale A. Easton
4513, James F. McGriff 1332, Lonnie J. John-
son 4612, Emil J. Steinkraus 7133, Stanley
Urevitch 4212, Joseph M. Bunch 2411, C. L.
Carpenter 7185, Roscoe G. Brooks 4232.
Carlton C. Whitcomb 4543, John R. Piri
4232, Richard M. Lujan 2644, Paul D. Pewe
3113, Ruth D. Wood 3126, Paul E. Miller 2563,
Bernard J. Hussey 3242, Hilman Frock 3242,
Charles B. Taft 2642, Thomas J. Tangney 3242.

Corporation Employee Benefit . . .

'At Sandia Ten Years, Five Yesterday' Anniversary Marked by Jack Curran

"It seems like my fifth anniversary with Sandia Corporation was only yesterday," said Jack Curran (8234) when he was presented with his 10-year service award. As a matter of fact it was.

Jack is one of several Sandians who left the company and later returned to work. Under Corporation policy, anyone who returns to work after such an absence and works an additional five years is entitled to restoration of his previous service credits. Jack's present five years plus previous service of more than five years entitled him to the 10-year award.

Like others whose service has been "bridged," Jack is now eligible for reinstatement of other benefits as well. He has the option of restoring his previous retirement credits by replacing money he withdrew at the time he terminated. His original sick leave credits have been restored up to the maximum allowed, and his group life insurance policy has been brought up to date.

Jack originally joined Sandia Corporation on Nov. 15, 1950, and terminated Oct. 12, 1956. At the

time he left, he had five years and 11 months service. He rejoined

Sandia on Dec. 12, 1956, and bridged his service this month.



DOUBLE TAKE here is no mistake. A. R. Eiffert (8230) congratulates Jack Curran (8234) who bridged his service Dec. 13 making him eligible for a 10-year pin after being back five years.

Promotions

- James K. Fjelseth (3441) to Tabulating Equipment Operator
- Anita P. Whatley (3441) to Tabulating Equipment Operator
- M. Joann Mitchell (3441) to Tabulating Equipment Operator
- Elsie N. Wickham (3441) to Tabulating Equipment Operator
- Jack J. Anderson (3441) to Tabulating Equipment Operator
- Harriette J. Melton (3441) to Tabulating Equipment Operator
- Irene L. Bushmire (3441) to Tabulating Equipment Operator
- Margaret W. Davis (1442) to Data Reduction Clerk
- Jack V. Almstad (8123) to Data Reduction Clerk
- William J. Brown (8161) to Staff Assistant, Administrative
- Stanley B. Roeske (4233) to Assembler
- Leroy Henderson (4511) to Electrician
- P. O. Rogers, Jr. (4234) to Technician
- Jesse W. Mitchell (4253) to Model and Instrument Maker
- Mary Ellen Dixon (3126) to Secretarial Stenographer
- Karen B. Smith (3126) to Secretarial Stenographer
- Linda L. Wrhel (3421) to Library Assistant
- Juanita R. McBride (4135) to Accounting Clerk
- Verona M. Lauxman (4132) to Senior Clerk
- Durrell R. Teague (8232) to Bindery Operator
- Paul Knechtli (8223) to Machinist
- Janice D. Reinstein (8212) to Secretarial Typist
- Lillian K. Funk (8232) to Document Clerk
- Robert D. Corbett (8232) to Mail Clerk
- James S. Jardine (8123) to Laboratory Assistant
- Lenore D. Whalen (8212) to Secretary
- Hazel F. Hellen (8212) to Report Clerk
- Signa O. Matthews (8234) to Property Clerk
- Joseph H. Shelby (4253) to Machinist
- Robert D. Brammer (4231) to Technician
- Jose F. Lucero (3441) to Message Center Equipment Operator
- Raul Sanchez (4624) to Service Clerk
- Herman O. Armijo (4511) to Lamp man
- Marilyn A. Larson (8211) to Travel Clerk
- Esther D. Rickert (8224) to Stock Record Clerk
- Linda Kay Shaifer (3151) to Receptionist
- Betty R. Shaffer (3121) to Personnel Clerk
- Jane G. Humphrey (3153) to Employment Clerk
- J. Robert Wycoff (7512) to Data Reduction Clerk
- Myrtle E. Mauldin (7161) to Staff Assistant, Technical
- Wilma Archbold (4632) to Tester
- Charles R. Byrne (4631) to Tester
- Emma Gonzales (2642) to Senior Clerk
- Betty L. White (3441) to Document Clerk
- Sue Ann Hanks (4423) to Typist
- Gwen A. Schreiner (3421) to Library Assistant
- Roger L. Busbee (8121) to Laboratory Assistant
- Ruth M. Burns (8116) to Editorial Assistant
- Garnet E. Stoner (3341) to Receptionist
- Supervisory Lateral Transfers**
- A. J. Derby from 8211-2 to 8211-3
- J. W. Benson from 4325 to 4332
- T. O. Meyer from 2561-2 to 2541-2
- C. H. Boal from 3441-2 to 3452-4
- F. Barnett from 2323-3 to 2323-2
- D. L. Hayes from 2323-2 to 2323-3
- J. W. Reynolds from 4321-1 to 4343-1
- H. C. Strauss from 4343-1 to 4314-2

'No Public Hazard Yet' From Fallout Radiobiologist Tells Lab Colloquium

Dr. Martin Fleck, radiobiologist at the University of New Mexico, presented a paper entitled "The Biological Effects of Radiation" to approximately 150 Sandians at the Corporation theatre on Dec. 15. He addressed a meeting of the Sandia Laboratory Research Colloquium.

Dr. Fleck's paper concerned the biological effects of radiation upon mammals with emphasis on amounts of radiation and elapsed time after exposure to white mice and swine, illustrating the mortality statistics and pathological symptoms resulting from varying exposure dosages.

He pointed out that the amount of world-wide nuclear testing in the past has not resulted in an amount of fallout sufficient to produce public hazard. "However, in a nuclear saturation attack by the enemy, radiation would produce a great hazard indeed," he said.

Genetic effects as a result of present radioactive fallout are not a danger at present, according to Dr. Fleck. Such effects are seldom measurable and seldom disfiguring to the organism in which they occur.



NEWEST ADDITION TO TECH AREA I is this three-story building, which will house offices and laboratories of the Research organization 5000. The recently-completed structure has two enclosed passageways which connect it to adjoining Bldg. 805. General move will be Jan.-March.



CONGRESSMAN CRAIG HOSMER of California, a member of the Joint Committee on Atomic Energy, visited Sandia Laboratory Dec. 7. Greeting him were: E. H. Draper, Vice President, Development; Congressman Hosmer; C. C. Campbell, Manager, AEC-Sandia Area Office; G. C. Dacey, Vice President, Research; and G. A. Fowler, Vice President, Development.

Sandia Lab Research Organizations Starting Move Into New Building 806

Work is nearing completion in Sandia's Tech Area I on building 806 (formerly 861, Phase II) which will house personnel and laboratories of the 5000 Research organization.

Similar in appearance and size to Materials and Standards Laboratory Bldg. 805, the two buildings will be connected on the second and third floors by enclosed passageways.

The three-story structure offers 60,000 sq. ft. of space. On each floor laboratory space is located in the center with offices around the outside. Plant Engineering Department project engineer is V. E. Kerr (4543-3). J. C. Gravlin (3425), 5100 administrative assistant, is coordinating the planning

and move for the research organization.

Six employees and a computer from Statistical Research Division 5425 are already temporarily located in rooms 115 and 123 while their permanent location is readied. About 12 other members of Mathematical Research Department 5420 are slated to move this month.

Main occupancy of the structure is expected to begin in early February. The entire move will involve between 170-175 employees and large quantities of laboratory equipment.

The first floor will accommodate Physical Research Department 5130 in addition to 5420.

The second floor will house Nu-

clear Burst Physics Department 5110 and offices of the Vice President, Research 5000, and Director of Physical Research 5100.

The third floor will have office and laboratory space for Physical Sciences Research Department 5150 and Radiation Effects Department 5430.

One convenient feature will be a reading or reference room stocking duplicate copies of basic scientific volumes and commonly-used journals.

Some groups within the 5000 organization will continue to occupy all or parts of Bldgs. 803, 808, 821, 824, 884, 9920, 9926, and the SERF and SPRF facilities in Area V.

Special Radiant Heaters Cut Cold At Sandia Lab's Tech Area Gates

Sandia Laboratory security inspectors have always been friendly and courteous. But the new warmth around them is caused by overhead radiant heaters installed in areas where they work.

Guards are constantly in and out of the gatehouses to check employees' badges and material passes. Previously, they either had to leave their coats on in the warm gatehouses or else step outside without their jackets. Hands got cold, too.

These intense infrared heaters make it possible for them to work

comfortably at low temperatures. They can check badges outside and still be protected from the cold weather by the heaters which give them a quick pickup of warmth.

Inside the gatehouses 800 watt lamps are used, and outside, 1100 watt bulbs have been installed. At Gate 6 the inexpensive heaters were placed on the island since most material goes in and out of that gate. The Escort building also has the larger heaters.

Planning and installation of the heaters were handled by Plant Engineering Department 4540.



FIRST OCCUPANTS of Research Building 806 are Priscilla Spahr and Lessie Lee (standing), both of 5420, who are temporarily located in room 123 along with a Control Data 160 computer and auxiliary equipment such as typewriter, flexewriter and CD 164 magnetic tape system. Other equipment will be added later.



Commemorative Stamp For New Mexico's Statehood Out Soon

Sandia philatelists have a chance to add a brand new commemorative postage stamp to their collections.

In addition, the New Mexico Golden Anniversary Commission has authorized issuance of a special envelope in connection with the new postage stamp honoring New Mexico's 50th anniversary of statehood.

The envelope, bearing a two-color cachet showing the State Capitol tower and the commission's official seal, will be mailed from Santa Fe on Jan. 6, the first day the new stamp is sold, with a special postage cancellation reading "first day of issue."

Stamp collectors may obtain the envelopes and stamps by mailing orders to "Official Cachet" at Box 1221G, Santa Fe, N. Mex. The covers will be addressed and franked with single copies of the New Mexico statehood stamp at a cost of 25 cents each, and with blocks of four stamps at 50 cents each. Plate number blocks of the new stamps are available at \$1 per cover.

Enclosed with each envelope will be a card signed by Gov. Edwin L. Mechem giving a brief history of the state.

A. D. Swain Gives Paper in Mexico

Allen D. Swain (1443-2) will present a paper to the Seventh Congress of the Inter-American Society of Psychology to be held in Mexico City Dec. 19-23. The paper, entitled "System and Task Analysis, a Major Tool for Designing the Personnel Subsystem," will be presented to a symposium at the Congress.

Special Enrollment Ups Health Care Plan by 480

According to Benefits Section 3122-1, the Special Enrollment Period for Sandia Corporation's Health Care Plan resulted in 480 applications for coverage. This brings the total enrollment to 88.5 per cent of Sandia Corporation employees.

During the period, 373 employees enrolled in the plan and 107 employees made application for increased coverage.



SECURITY INSPECTOR E. D. Sims stands in his shirtsleeves to check employee's badge although temperature is quite low. Outside warmth is caused by new overhead radiant heaters.



FIRE INSPECTOR Walt Smith, right, prepares to give signal to sound fire drill alarm to Ted Rosenwald, Bldg. 887 Assistant Fire Team Captain. Walt conducts about 244 fire drills each year.



BLDG. 887 EMPLOYEES pour out of front entrance and exits, and stand by with fire extinguishers. Employees took less than four minutes to check building and completely evacuate all personnel.

Fire Drills Don't Interrupt Work; They Prevent Panic, Save Lives

From the sounding of the alarm until all four floors and basement of Bldg. 802 are empty of employees, only three minutes and 59 seconds elapse. In that brief time 600 persons file from the building. It's only a drill. If it were "for real" past drills would pay off in lives not lost.

Clocking such exercises is Sandia Laboratory's Fire Inspector, Walt Smith (4542-1). Walt conducts about 244 fire drills each year in Tech Area I. He also directs and trains the 900 employees who are members of Sandia Lab's Fire Teams.

"Fire drills are necessary," Walt says, "as training to save lives. I've been asked often why the need

exists to interrupt important work with 'kid stuff' fire drills.

"Anyone who has ever been in an emergency fire situation can tell you that adults can panic. Participation in an orderly fire drill and the confidence that results prevent this kind of terror."

First requirement in a fire situation is to get people out of the building and to a safe place without injury. The time element is extremely important.

Second consideration is securing classified information or material. All organizations have these responsibilities assigned to members of the building fire team. Team members also close windows, shut off machinery, and grab fire extinguishers.

Third consideration is fighting fire and salvaging equipment. This is a responsibility of the fire team and the Base Fire Department.

"The existence of fire teams," Walt says, "does not lessen each employee's responsibility for fire prevention, reporting fires, protecting Corporation personnel and property, or safeguarding classified information."

Fire drills are held in each building every 90 days. Fire team members and employees should know what to do in case of a fire emergency.

"Ten years ago at Sandia," Walt says, "it took 14 minutes to clear Bldg. 802. Now all the major buildings can be emptied in less than four minutes. The 600 employees in Bldg. 880 can clear in three minutes and 24 seconds. Smaller buildings can clear much faster. Bldg. 821 is vacated in 35 seconds, for instance."

Walt has been a "smoke-eater" for the past 24 years. He started with the Oklahoma City Fire Department as a crew chief engineer when Oklahoma City had the largest oil field in the world within the city limits.

"We fought some rugged ones," Walt remembers. "We lost about two firemen a year. During one fire a butane tank exploded causing one fireman's death and injuring 12 others."

Walt later became a fire inspector and conducted fire prevention programs in industry. He came to Sandia in 1950 as a member of Sandia's Guard Force when it shared fire prevention activities with Plant Engineering Department.

Little League Seeks Qualified Volunteers To Assist Players

The Mile High Little League Baseball organization is looking for qualified volunteers to manage teams or keep score during the coming Little League season. Approximately 500 boys, ages 8 to 13, belong to the group.

If interested, contact John Farnner (4251), ext. 25246, or Tony Lopez (4212), ext. 36243.



Mr. Baerwald

Highest Member Honor of IRE to H. G. Baerwald

The Institute of Radio Engineers has conferred its highest membership honor upon Hans G. Baerwald of Applied Research Division 5132. The Fellow award is bestowed only by invitation to those who have made outstanding contributions to radio engineering or allied fields.

Recognized for "contributions to network theory and to the theory of piezoelectric devices," Mr. Baerwald will receive his formal certificate at a dinner meeting of the Albuquerque-Los Alamos Section in March. He will also be a guest at the IRE annual banquet held in conjunction with its national convention in New York City on March 28.

Educated in Germany, Mr. Baerwald received his PhD degree from the Institute of Technology in Breslau. Before coming to the U.S. he worked for companies in several European countries.

He formerly was with the Cle-vite Corp. in Cleveland, Ohio, for almost 20 years, and spent a short time as a consultant for General Electric Co., also in Cleveland.

Mr. Baerwald has been at Sandia almost three years.

Rocky Arroyo Goes To Rose Bowl Game

Next week V. F. "Rocky" Arroyo will be attending the Rose Bowl game in Los Angeles. Tickets and transportation are courtesy of the Albuquerque Athletic Association. This is the result of forgetfulness on Rocky's part (not that he minds now.) It seems that Rocky, who works in 4543, was supposed to sell some tickets for the AAA and forgot to do so. When asked to turn in his sales, he was too embarrassed to report what really happened so he said he sold 24 tickets, and paid for them himself. One of these was the winning ticket.

Uprising in Bogota Gave Family Experience Similar to Living in Small Fallout Shelter

A family confined in a fallout shelter might encounter problems such as those experienced by Mary Davis (3446-2) and her family several years ago when they were trapped during an uprising in Bogota, Colombia.

The outbreak of fighting occurred on April 9, 1948, when the left wing presidential candidate was assassinated. Within 15 minutes the uprising had spread to other towns in this South American country. Mary's husband (then chief pilot for Standard Oil of New Jersey) was stranded at Barranquilla, the country's main port on the Caribbean.

After the revolution started the government-operated radio station was taken over by Communist-inspired groups, which broadcasted warnings that the city's water supply had been poisoned.

Mary said everyone rushed to fill jugs with water from storage wells and to purchase candles and any canned goods available. After these necessary trips Mary, three of her four children (one was attending school in New Mexico), and four other women "holed up" in the Davis apartment. They were there for a week.

During this time the children could not go out of the building, nor could any of their friends visit them. "They played checkers with each other and Mary Ellen made clothes for her doll," Mary recalled.

On the fourth day, when they were down to eating potato soup, the U.S. Embassy sent around an armored truck with food from its commissary and fresh duck eggs.

The apartment was on the side of a hill and provided a view down the main avenue. "As the fighting progressed toward the mountains from the square, where 1500 were killed, we could see the mob marching along the street with machetes and sharpened sticks. Molotov cocktails were thrown at hotels, old churches, other buildings, and cars," Mary said. "The home of Simon Bolivar was not damaged, a sign of the real respect the people have for their national hero."



SPEAR-CARRYING GOVERNMENT TROOPS, marching against revolutionists during 1948 Colombian uprising, were photographed by Mary Davis (3446-2) from her Bogota apartment. The Davis family was barricaded in the apartment for a week.

When the soldiers and the revolutionists began fighting in the street in front of the Davis apartment, Mary and the other occupants moved tables against the windows and otherwise barricaded the openings as well as they could. Then they sought refuge in the bathroom, which was the only room with five walls between it and the street. "Fortunately," she noted, "the bathroom was large enough for all of us to lie on the floor. But the nights were the worst—we could hear gunfire in all parts of town and yells and screams."

The fifth day of the siege, Mr. Davis was the only foreigner permitted to fly across the country to Bogota. He was met at the airport by an armored car and taken to his family.

The Davises had been in the country eight years when they returned to the United States two months later.

A recent issue of a national magazine noted that since 1948 vicious political strife in Colombia had taken 300,000 lives and that bitter feelings still persist.

Security Bulletin Board Prompts Many Queries

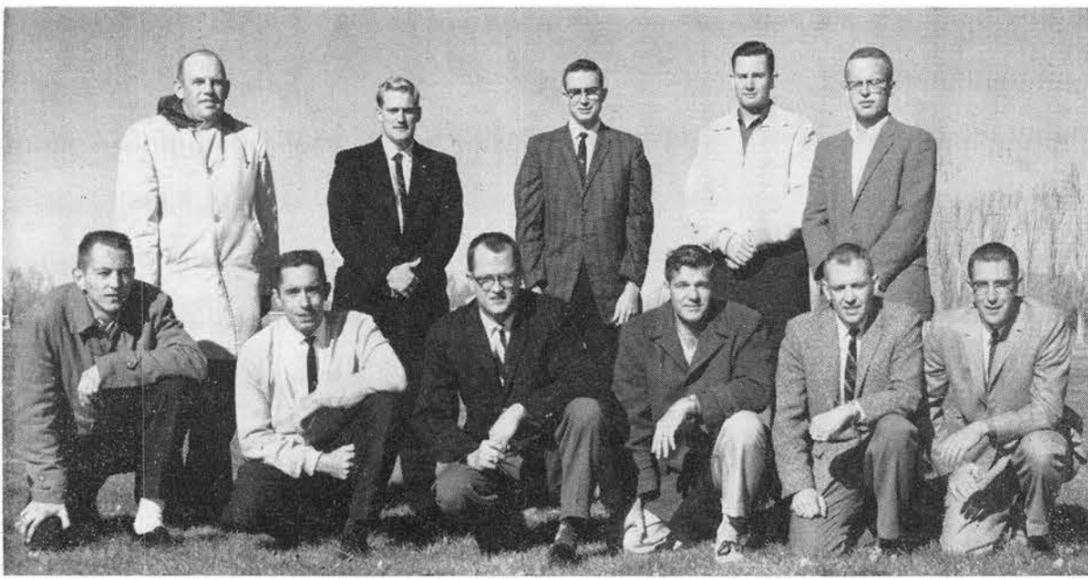
Security Education Section 3232-1 received many inquiries concerning the security message, "Communist Criminal Conspiracy Party," which recently appeared on Laboratory outdoor bulletin boards.

The first letters of the words stand for USSR in the Russian language. C is the first letter of the Russian word Union and C is also the letter S in Russian. P is the Russia letter R. Therefore, CCCP stands for Soyuz Sovietkikh Socialiticheskikh Pеспублик, or USSR.

Six boards are located throughout Tech Area I near gate entrances. One week three of the boards carry a security slogan, and the other three, a safety message. The following week the messages are rotated. Laboratory employees see new security and safety messages every two weeks.

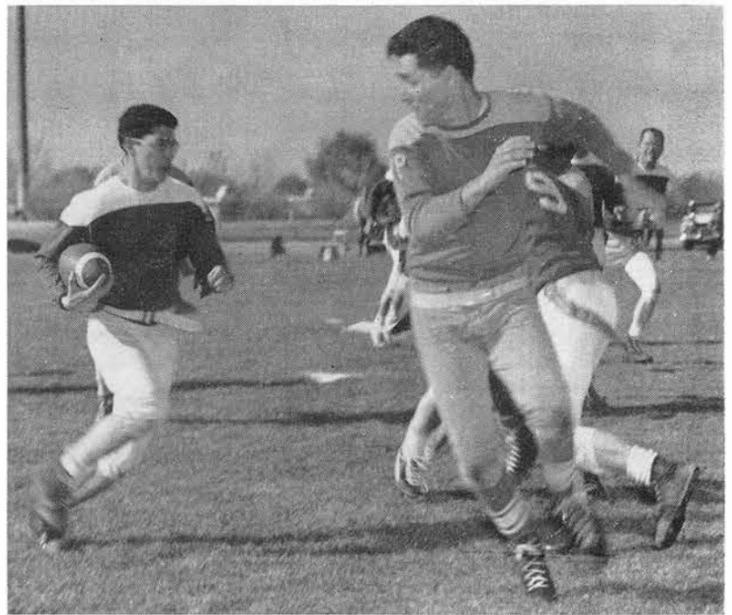


BILL GARCIA (3232-2) makes final adjustments on the security message, "Communist Criminal Conspiracy Party." CCCP means USSR in the Russian language. Signs are changed each week.



FLAG FOOTBALL CHAMPS from the recently-completed Sandia league lined up on a recent chilly morning for a post-season photo. Back row, 1 to r., G. H. Hildebrandt (1330), H. J. Filusch (7124), T. G. Priddy (7182), L. W. Peacock (2412) and K. D. Christian (1323). Front row, L. A. Kracko

(2412), M. M. Newsom (7164), W. F. Hartman (7161), C. E. Haag (7122), J. R. Canon (7161) and J. A. Abbott (2421). Not present were D. L. Mangan (1413), J. G. Teague (1332), T. S. Edrington (7147) and C. D. Lundergan (7161). Six teams competed in the 1961 season, starting Aug. 26.



MANZANO BASE won the 1961 annual inter-base flag football tournament last month by scoring a 22 to 16 victory over the Carrying the ball here for Sandia Lab is Charlie Salazar (4254). Sandia Laboratory all-stars in a game that went into overtime.



1961 SANDIA LABORATORY ALL-STAR flag football team competed in the recent inter-base tourney. The players were (back row, 1 to r) Dan Power (7241), Keith Christian (1323), Joe Abbott (2421), Cliff Kinabrew (7534), Gary Lloyd (AEC), Bill Hartman (7161), Pete Thoma (1112), Bob

Taylor (3441), Art McCarthy (7223), Charlie Salazar (4254). Front row, Jim Randall (7325), Jerry Williams (7322), Norris Rose (3121), Bill Peila (2531), Jack Canon (7161), Don Dekker (2531), Herb Filusch (7124), and Phil Lopez (AEC). Coach George Hildebrandt (1330) had two assistants.



FAMILY NIGHT entertainment at the Coronado Club on Sunday, Dec. 31, will include the "Unicycle Wranglers" from Kay Windsor's Dance Studio. A magician, an acrobatic ballerina, and a dancing group will also perform during the free show.

Manzano District Boy Scouts Honor Several Sandians at Banquet

Several Sandians received scouting honors during the annual Manzano District banquet of the Kit Carson Council, Boy Scouts of America, held last week at the University of New Mexico Student Union.

The Order of St. Andrew, presented annually to an outstanding Scoutmaster and Explorer Advisor, was awarded Arthur Clark, Jr., (7125) and Bill C. Caskey (7115-1).

Mr. Clark is explorer post advisor at Sandia Base. He started

working with Cub Scouts six years ago and has been with Explorer Scouts (ages 14-18) for the past three years.

Mr. Caskey is Scoutmaster of Troop 4, comprised of 25 boys. He has been with this troop for five years and has served as Scoutmaster for two years.

Woodbadge awards were given to Fred A. Leckman (2642), Arnold E. Bentz (7253) and W. C. Clark (7323).

G. A. Fowler (7000) was installed as chairman of the Kit Carson Council.

Square Dance Club Plans Dance, Dinner

The Allemanders Square Dance Club will sponsor a New Year's Eve Square Dance on Dec. 30 at Valley High School, reports Ray Beal (4254), president. Caller will be Fred Bouvier.

Round dancing will be from 8 to 8:30 p.m., and square dancing from 8:30 to 12. Dinner will be served afterwards. Tickets are \$2 which includes both the dance and dinner.

Tickets may be obtained from club representatives and must be purchased by Dec. 26.

Special Attraction To Be Offered At Club Family Night Sunday, Dec. 31

Family Night at the Coronado Club on Sunday, Dec. 31, will include special entertainment in addition to the usual free movie, cokes, and popcorn.

"The Windsorettes," a dance troupe from Kay Windsor's Studio, will perform following the movie. A magician, acrobatic ballerina, and the "Unicycle Wranglers" will conclude the 45-minute show.

The movie, "Everything But the Truth" starring Maureen O'Hara and Tim Hovey, starts at 6 p.m.

Horns, hats, and balloons, supplied by the club, will lend a festive air to the New Year's party which will be held on Saturday,

Dec. 30, from 9 p.m. to 1 a.m. Leigh Sprague's orchestra will play. At evening's end, a free breakfast will be served.

Tickets, which can be picked up now at the club office, are \$3 for members, \$4 for guests.

The club's annual free cocktail party for members only on Jan. 1 from 3 to 5 p.m. will feature the music of the Sol Chavez Quintet. They'll play from 3 to 6.

Regular Friday evening activities will be held on Dec. 29. The Del Reys will provide music from 4:30 to 7:30 p.m. Social hour is from 4:15 to 6:30 and the \$1.75 buffet will be served from 6 to 7:30.

SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER

CLASSIFIED ADVERTISING

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

RULES

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

FOR SALE

BASSINETTE, hooded, on rollers, w/mattress, liner, \$10; Keystone 8mm camera, 1.9 lens, \$18; girls' shoe roller skates, size 8, \$5. Warner, 298-3126.

100% CASHMERE COAT, never worn, size 16, \$40; one-piece fiesta dress, size 16, \$15. Horne, AM 8-9646.

BABY CRIB, full size, \$18; violin, 3/4 size, \$60. Hayes, AX 9-1200.

FIVE YEAR registered Tennessee walking mare, black, 16 hands, \$300 for quick sale. Leamon, TO 5-9360.

RCA 45 rpm record player, pink and white, \$12. Schenck, 8104 Princess Jeanne Ave NE, AX 9-0585.

SELL OR TRADE, old fashioned kitchen sink; portable trampoline; boat winch, 1000 lb.; 6-volt sealed beam flood light. Stuart, AX 9-1900.

SELL OR TRADE OLDER CAR, '60 Pontiac Catalina, 2-dr., PS, Hydro, 11,500 miles. Baudoin, 2737 Morningside NE evenings and weekend.

BABY BASSINETTE, w/mattress, liner and rolling stand. \$10. Bemis, AM 8-6376.

TYPEWRITER, Royal portable in case, \$25. Howard, AL 5-9489.

TWO MOTOR SCOOTERS, as is, best offer, see at 1100 California SE. Young.

REMINGTON Model 760 ADL .30-06 slide-action rifle, recoil pad, B & L scope mount, \$60. Taylor, AL 6-3774.

3-BDR. 1958, 48"x10" Whitley house trailer, by individual. Beeson, 255-3249 after 5 p.m. and weekends.

TWIN BED FRAMES; one 17" TV. Amador, 1406 8th NW, CH 2-7288.

CCM ICE SKATES, 1 pr. boy's black, size 13, 1 pr. girl's white, size 10, worn twice, \$8 per pair. Harper, AX 8-0146 after 5:30.

'57 ALLSTATE Cruisair motor scooter w/spare tire and windshield, \$125. Bruce, AX 9-2542.

'60 NASHUA TRAILER, 10'x50", 2-bdr., carpet, cooler, cheap, low down or furniture; Fender telecaster guitar w/deluxe amplifier, \$200. Naumann, 9000 Zuni SE, space F-20, 298-1953.

8MM MOVIE CAMERA, new, 1 roll 8mm film, both for \$18. Cowan, TR 7-1664.

STEEL GARAGE door, 7'x9', \$35. Mantoya, 4313 San Andres NE, DI 4-6966.

PRICED UNDER MARKET, Roberson, 1600 sq. ft., 3-bdr., den, fireplace, 1 1/2 baths, a/c, sprinklers, 43% GI, \$18,500. Borbery, AX 9-3210.

'56 TRI-PACER 150 airplane, full panel, full radio equipment, new tires. Hitchcock, 268-6531.

LIONEL 027 train, will sell parts separately; New Porter Senior Lab Master microscope No. 222, \$18; Conn Coronet, \$85. Costello, AL 6-9702.

46' HOUSE TRAILER, '57 Rocket, 3-bdr., 1 1/2 bath, refrigerator, washer, new drapes, large picture window, reasonable. Crain, AX 9-1509.

'58 DODGE, V-8, Hydromatic, 4-dr., two-tone green, R&H, PB, call daytime. Boring, DI 4-2014.

NECC SEWING MACHINE, straight stitch, mahogany cabinet; have two high stools good for kitchen bar. Papineau, AM 8-0174.

EASY IRONER, \$50; GE mobile dishwasher, \$50; both for \$90. Bachand, AX 9-5167.

'59 PLYMOUTH station wagon, 6-cyl., straight transmission, by owner, \$1150. Burnett, AL 5-9270.

'52 STUDEBAKER, 6-cyl., R&H, OD, \$95. Navratil, AX 9-3355.

NEXT DEADLINE

FOR SHOPPING CENTER ADS

Thursday Noon, Dec. 28

3-BDR., 1 1/2 baths, carpet, drapes, study, Dining room, utility room, unfinished room, central heat, a/c, patio, 1416 Kentucky NE, Bortniak, 256-3177.

HI-FI SPEAKERS and enclosure, AR-2, walnut finish four sides, rated best buy in Consumers' Report, \$60. Scheiber, 6713 Dodd NE, AX 9-4743.

GERMAN SHEPHERD PUPS, males \$10, females \$5; large gas refrig., \$15. Pritchard, DI 4-3984.

REFRIGERATOR, GE, 8-cu.-ft. \$65; wringer washer, Thor, \$45. Mecklenburg, DI 4-6793.

3-BDR., carpet, drapes, blinds, walled, landscaped, close to bases, low down payment. Benson, AX 9-4159.

'54 MERCURY 4-dr., R&H, AT, 80,000 miles, 30,000 since overhaul, clean, sound mechanically, \$360. Moore, AX 9-3758.

FREE, one Christmas Airedale, Labrador, German Shepherd combination puppy wants a good home. Church, 242-7426.

'50 CHEV. carryall: 10" radial air saw; purebred Labrador puppy; cocktail dresses, size 10; baby crib and mattress; H&R 22 rifle. Workman, 299-6250.

TWO-BDR. and den, close to bases, screened patio, sprinklers, low down or will lease. Calvery, 299-0455.

20" BICYCLE, pneumatic tires, light coaster, brake and training wheels, can convert to boys or girls, \$25. Sarnic, AX 9-8916.

LARGE 3-BDR., 1 1/2 baths, 22x15 lr., 2-way fireplace, 10x18 family room, pantry, built-in appliances, flexible financing. Troyer, AX 9-7105.

'60 FORD Ranchwagon w/cruise-o-matic, 352 engine, R&H, 10,000 miles, \$2000. Mickey, AX 9-4344.

'56 FORD, 4-dr., stick shift, OD, R&H, \$475. Gustafson, AX 9-3270.

8MM KEYSTONE MOVIE CAMERA w/three F1.8 lenses on turret, \$45; Keystone 500w projector, \$70; Shew, 255-0263.

HAMMOND SPINET ORGAN, current model, walnut, two 44-note manuals, cost \$1450, asking \$950, must sell, free delivery. Morewood, AX 9-1734.

MAPLE bedroom set, dresser, large chest, night stand, double bed, mattress and springs included. Chavez, AX 8-0674.

SKI BOOTS, men's size 10 1/2, \$10; junior skis, bindings, poles, \$12; misc. ski equipment. Long, AL 6-0262.

WANTED

HOME for 18-month-old dog, Beagle-Dachshund cross, good watchdog, gentle with children. Hart, AX 9-8832.

RIDER from Blake SW and Hiway 85 across Barcelona Bridge to bldg. 836 or 802. Benton, TR 7-0873.

INEXPENSIVE SWING SET or train set, \$5-\$10 range. O'Nan, AX 9-1803.

INEXPENSIVE slide projector. Stuart, AX 9-9190.

TO START CAR POOL from vicinity of Chavez Rd. to Sandia Corp, have two in car, would like three more. Gentry, DI 4-8384 or Barnes, DI 4-6630.

SIAMESE KITTEN, male, gentle with small children. Smith, AM 8-3578.

RIDERS: 1520 Garcia NE, work at Bldg. 802. Aresdorf, AX 9-0844.

RIDE from 237 Morningside NE to 860 parking lot. Webster, AM 8-5671.

TWO RIDERS from Los Lunas area. Carson, TO 5-9954.

OSCILLOSCOPE and preamplifier. Hedman, AX 9-2077 after 6 p.m.

SKIS, 6 ft., preferably with safety bindings. Must be reasonable. Bascom, AX 9-1662.

FOR RENT

3-BDR., Princess Jeanne Home, elec. stove and refrigerator, drapes, carpeting, \$90/mo. Hackard % Pinkerton, AL 5-2505.

TWO 1-BDR. apartments, 1 furnished, close to Sandia Base. McClahzee, 298-4156 after 6 p.m.

1-BDR. APT. furnished. 227 Alcazar NE, all utilities paid, \$70/mo. Cahill, AL 5-6425 days, AL 6-6515 after 5 p.m.

2-BDR. DELUXE apartment, electric kitchen, washer, carport, 1708 Alvarado NE, available Jan. 1. Beckes, AL 6-3967 after 5:30 p.m.

FOUR-BDR. HOME, carpeted, 1 1/2 baths, forced air heat, a/c, near shopping, schools, churches. Duffy, AM 8-5075 after 5:30.

FURNISHED APT., h/w floors, garage, 5 min. to Sandia Base. 5605 Bell SE. Samuelson, AL 5-8243.

TWO-BDR. HOME w/fireplace, garage, unfurnished, stove and refrigerator only, near bases and University, water, garbage paid. \$82. 512 Vassar SE. Imresik, AL 6-9063.

PINE paneled, furnished room, carpeted, walk-in closet, private bath and entrance, close to base, gentlemen preferred. Joseph, AM 8-5414.

REDECORATED 2-bdr. apt., stove and refrigerator, washer rough-in, storage space, water and garbage paid, 528 Cardenas SE. Tillman, AL 5-6292 after 5:30 p.m.

FOUR-ROOM HOUSE in NE heights, stove and refrig., garbage, water and electricity paid, \$55/mo. Schiess, AL 5-3252.

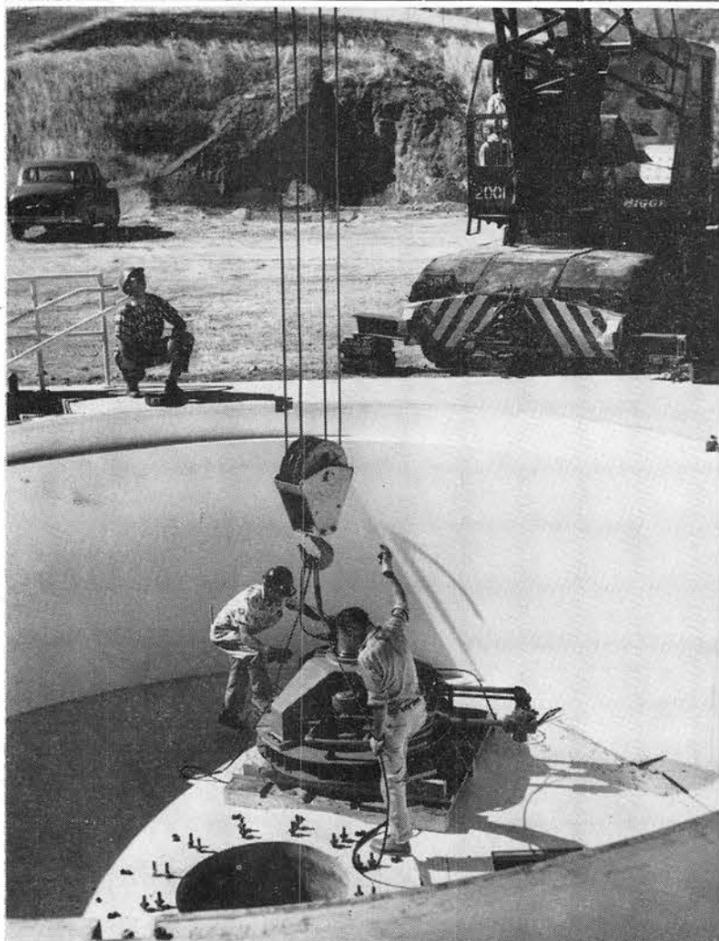
3-BDR., newly decorated, unfurnished house, gas range and heater, \$65, SW valley. Barrett, AM 8-2963.

LOST AND FOUND

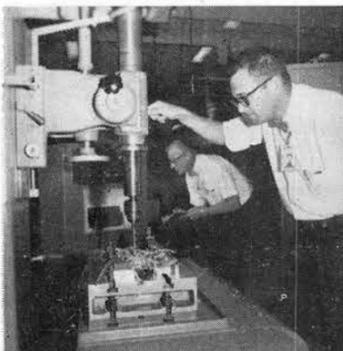
LOST — Red and gold Scripto pen, red and plastic zipper coin purse, prescription safety glasses, safety glasses, aqua and sterling earring, black wallet with ID of Emilio R. Baca, dark brn. leather glove, lady's tan-gray leather palm glove, plastic rim bifocal glasses in brown case, gray tortoise shell glasses, keys on ring with Frontier Ford boot, red check book of Ronald Ewing. LOST AND FOUND, ext. 26149.

FOUND — Lt. blue and navy earring, grey safety glasses, gold dangle heart earring, blue plastic zipper case left on bus 11-28, safety glasses, blue knit glove with leather palm, tan stone earring, tag with name "Richard Baldwin Thomas", silver tie clasp, gold tie clasp with sliding crown. LOST AND FOUND, ext. 26149.

Year 1961 Sees Full Activity, Sandia Corporation Progress



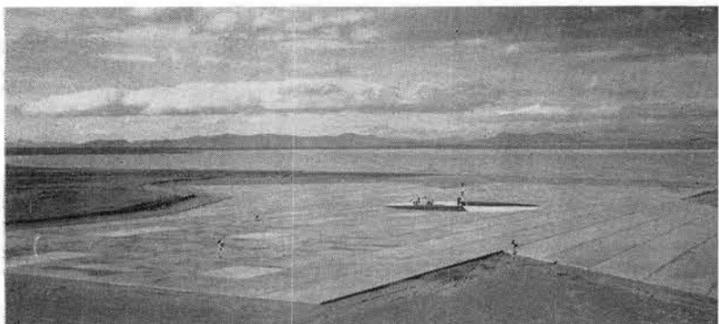
Centrifuge Installed at Livermore Lab



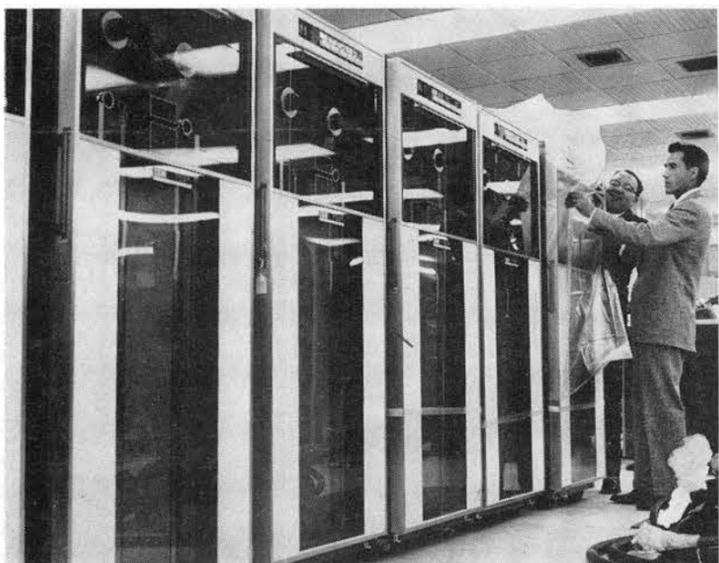
Numerically-Controlled Tooling



Salton Sea Base closed



Tonopah Test Range



More New Equipment

Increased facilities for research projects, and an organizing in interest in technical organization activities marked the year 1961 at Sandia Corporation.

Resumption of nuclear testing was emphasized by the year-end Project Gnome shot at Carlsbad, N. M., the first of the peacetime Plowshare experiments.

Here is a resume of Sandia activities as reported in the Lab News in recent months.

January

The AEC signed a contract with the Air Force Development Center for Sandia Laboratory use of the 35,000-ft. Holloman AFB rocket sled track. Environmental Testing organization 7300 is designing two sleds for test programs; a third will determine rain erosion effects on materials.

T. B. Cook (5110) was named a consultant to the Nuclear Panel of the Air Force's Scientific Advisory Board.

C. H. DeSelm was named Director of Staff Services at Livermore after serving for two years as Personnel Director at Sandia Lab.

Sandia's first president, G. A. Landry, died Jan. 30 in Summit, N.J., after a short illness.

February

Many Sandians were active in a Materials for Nuclear Applications Symposium, sponsored by the American Society for Metals, which attracted participants from throughout the United States.

Science students from Livermore and Pleasanton high schools toured Livermore Laboratory during the Laboratory's first Edison Day program.

Another annual technical meeting of importance, the Standards and Metrology Division of the American Ordnance Association, was held in Albuquerque with H. C. Biggs (2410) and J. C. Moody (2411-1) helping to plan the affair.

Two sophomore engineering students from the University of California were the first to join Livermore Laboratory under a cooperative work-study program.

Some 120 top science and math students from Albuquerque and Belen high schools were on hand for the fifth annual Edison Day tour of Sandia Laboratory.

W. C. Scrivner was named Personnel Director 3100. He had been Director of Inspection since July 1959.

March

Livermore Laboratory marked its fifth anniversary. It has grown from a wooden barracks building to an \$11,000,000 installation, and personnel has increased in number to 950.

A Navy Certificate of Merit was presented Sandia Corporation during ceremonies at Livermore Laboratory for work on the warhead for the Polaris missile.

B. S. Biggs, Vice President, Development, was transferred to Vice President, Livermore Laboratory. E. H. Draper was elected Vice President, Development, and L. D. Smith was promoted to Director of Electromechanical Component Development.

A Cockcroft-Walton accelerator was installed for use in ion and neutron studies.

The third class of Sandia Laboratory apprentices completed their training and became journeymen machinists.

A Certificate of Excellence in miniaturization was presented Sandia Corporation at the annual Miniaturization Awards Banquet in New York City.

April

Sandia Laboratory received its 11th National Safety Council Award of Honor for safety accomplishments.

Sandia Laboratory hosted the Upper-Atmosphere Symposium held at the request of the AEC Division of Biology and Medicine.

Livermore Laboratory's unblemished safety record, dating back to March 1956, when the facility was established, ended April 22.

May

A contract was let to construct a 5000-sq.-ft. addition to the Mod-

el Shop building at Livermore Lab.

Pulsed nuclear reactor (SPRF) was ready to go critical. The reactor is a source of fast neutrons and gamma rays for use in radiation effects studies.

June

The number of Sandians purchasing U.S. Savings Bonds through payroll deductions increased 13 per cent.

An 80,000-lb. steel firing chamber was installed in Area 8 at Livermore Laboratory for explosives testing.

Representatives of the National Standards of the conducted a review of Sandia Corporation's Primary Standards Laboratory — part of a system to insure accuracy of instruments, gauges, and testers used by all AEC contractors.

July

D. R. Cotter was promoted to Director of Advanced Systems Studies, 9100—a new organization responsible for conceptual and feasibility studies for new weapon systems.

Four technical artists earned first awards from the Technical Illustrators Management Association.

Salton Sea Test Base in California was placed on a stand-by basis by the AEC. A handful of employees will remain to provide maintenance and property protection.

Underground radio telemetry system, designed and built by Sandia Laboratory, was ready for tests in a salt mine near Winfield, La.

August

A series of high explosives tests was scheduled at Coyote Test Field to determine the effects of bursts at different heights on transmission of sound waves.

A Sandia research rocket sled hit Mach 1.3 under partial power on the Holloman AFB six-mile track.

Livermore Laboratory's new 16-ft. centrifuge was installed in Area 8 for testing objects weighing as much as 3000 lbs.

A volunteer 50-man Sandia emergency force held its first trial exercise.

L. J. Paddison, 2400, was named national chairman of the IRE Professional Group on Reliability and Quality Control.

Livermore Laboratory safety posters received wide acclaim at AEC installations throughout the country.

Two-hour orientation lectures were held for 100 Sandia Laboratory engineers on numerically-

controlled machine tools—a relatively new development.

September

Organization 7300 sponsored the first New Mexico Environmental Test Workshop. About 120 representatives of research and development laboratories, military agencies, and universities attended.

G. C. Dacey was transferred from Bell Telephone Laboratories to become Sandia's Vice President, Research.

The fourth class in the Sandia Laboratory Machinist Apprentice program graduated.

The Sandia Corporation Board of Directors held its annual meeting and technical briefings.

October

The Valley Memorial Hospital at Livermore opened. Sandians contributed more than \$75,000 to help make possible the needed community facility.

Sandia Lab's technical library moved to Bldg. 804.

Additional radiation chemistry studies made possible through the use of new 10,000-curie cobalt-60 source.

Livermore Laboratory employees contributed \$11,191 to 1961 United Bay Area Crusade.

November

Presidential go-ahead to Project Gnome meant increased activity for Sandians connected with proposed Carlsbad, N. M., underground nuclear blast.

Final '61 ECP figures totaled \$155,622—an increase of \$19,000 over last year.

D. W. Ballard (2564) was installed as national treasurer of the Society for Nondestructive Testing at the annual meeting in Detroit.

Senator Albin K. Babbitt and Tonopah businessmen and civic leaders visited Sandia Corporation's facilities at Tonopah Test Range.

December

Sandians took part in preparations for Project Gnome, a five-kiloton nuclear detonation, which was fired Dec. 10 in a tunnel near Carlsbad, N. M. Intensive activity had been underway since October.

Field Inspector Bill Yoder was lauded for his actions during an explosion and fire at the Wurlitzer Company's plant in North Tonawanda, N.Y. Damage was estimated at \$231,000, and one person died of injuries.

Employees went all out on Christmas charity projects. Hundreds of dollars, cases of canned goods, and boxes of clothing were collected for distribution to needy families and for other charitable purposes.



Acceptance of Navy Certificate of Merit

Sandia's Safety Record

Sandia Laboratory HAS WORKED 930,000 MAN HOURS OR 27 DAYS WITHOUT A DISABLING INJURY

Livermore Laboratory HAS WORKED 135,000 MAN HOURS OR 27 DAYS WITHOUT A DISABLING INJURY