



“**Plow Your Share** into America is the slogan chosen for the coming U. S. Savings Bond Drive at Sandia Corporation. Sue Evans (2543) liked the idea and prettily helped to illustrate it.

## Sandia Savings Bond Drive to Take Place Week of May 11-18

“Plow Your Share into America” is the theme of the coming U.S. Savings Bond drive to be conducted at Sandia Corporation the week of May 11-18. Every employee will be given an opportunity to sign up for payroll deduction purchases of U.S. Savings Bonds.

I. M. Moore (5310) heads the Sandia Committee for the drive. Assisting him will be J. M. Wahlenmaier (4842), A. A. Amato (4742), H. E. Burrell (4224-3), W. A. Benson (5313), R. C. Colgan (4731-2), R. W. DeVore (2710) and R. L. Peurifoy (1245).

At Livermore Laboratory Arnold Schuknecht (8213-2) will be coordinating the campaign. The Livermore campaign will be conducted simultaneously with the Sandia Lab drive.

S. P. Schwartz, Vice President and General Manager, is general chairman of the Albuquerque committee for the Share In America campaign. Assisting Mr. Schwartz is J. W. Galbreath (4621).

At Sandia, plans are underway to present a concentrated campaign to inform employees of the advantages of regular purchases of Savings Bonds. Posters and displays are being prepared and literature will be distributed.

Each employee will receive a payroll deduction card. After completing the blanks on the card, employees will turn them in to supervisors.

“The committee appreciates the coming challenge and opportunity of the Savings Bond drive,” Mr. Moore said. “We are looking forward to telling our fellow Sandians of the need and advantages

of regularly buying bonds.”

The committee has set as a goal more than doubling the number of employees currently purchasing bonds by payroll deduction. Nine hundred employees have regularly saved more than \$20,000 monthly for the past year, an average of \$22 per person monthly.

“We are convinced,” Mr. Moore continued, “that purchasing Savings Bonds benefits the individual and contributes to the security of all of us.”

He has long been a regular purchaser of Savings Bonds, his first purchase dating back to 1938 and he has continued regular savings throughout the years.

“This is the best and most secure way I know for providing a college education for my five children,” he said.



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MAY 1, 1959

## Sandia Employees Hosts to Thousands on First Family Day

“It’s amazing!”

This was the feeling expressed most often by guests and hosts alike at the conclusion of Sandia Laboratory’s first Family Day April 18.

For guests it meant that they had enjoyed their first close-up of Sandia’s facilities, operation and equipment.

For hosts it meant that their months of preparation had climaxed with a visit from 15,000 eager, interested and extremely well-mannered visitors.

Sandia’s President J. P. Molnar, who brought his wife and son for a Family Day visit, said, “We thank the families of Sandia Corporation employees for the interest they showed in the Laboratory and their demonstration of genuine enthusiasm. Thousands of visitors appeared in response to our invitation, disregarding the unpleasant weather.”

Despite a chilly beginning and a windy evening, interspersed with threats of rain that never arrived, Family Day was a success—judging from attendance. Employees and their guests began streaming through Tech Area gates at 7:40 a.m. By 7 p.m. nearly 15,000 visitors, ranging in age from two weeks to 80 years plus, had been welcomed and presented with souvenirs.

Guests took walking tours through the Tech Area to see “where Daddy works” and then to visit the special exhibits and demonstrations set up in the Development Shops (Bldg. 840), Environmental Test (Bldg. 860), Static Test (Bldg. 864), Wind Tunnel (Bldg. 865), and Field Test and Electronic Data Processing (Bldg. 880).

During their tours, they paused at either of the Hospitality Centers located by Bldgs. 880 and 802 to rest and have refreshments—(meaning 41,650 cookies, 9,500 soft drinks, and 7,500 cups of coffee.)

Careful planning for the various Family Day committees, coupled with considerate visitors, produced a day unmarred by confusion or accidents. Safety and Security organization personnel encountered only routine problems while Medical personnel were only called upon to treat the usual assortment of youthful bruises and bumps.

One visitor’s comments were expressed in a letter received by the Public Relations Division 4731, which coordinated the tour.

Mrs. Joyce Williams (wife of Randal K. Williams 4231) wrote “I certainly enjoyed the tour on Family Day and it has helped me to understand a little of the type of work that is carried on. The employees who were on duty were very helpful and I wanted you to know that I appreciated the efforts made on behalf of the families of Sandia Corporation employees.”

Military to Evacuate Sandia Base Tomorrow In Training Exercise

### Military to Evacuate Sandia Base Tomorrow In Training Exercise

A training evacuation of Sandia Base to familiarize military dependents on base with procedures to be utilized in the event of an actual evacuation will be conducted tomorrow morning by the military, Base Headquarters announced.

Sandia Corporation employees on duty tomorrow will not participate.

Employees residing on base have the opportunity to participate in the exercise if they wish. However, base residents who are Corporation or AEC employees planning to avoid the evacuation or leave the base tomorrow are requested to do so prior to 7 a.m. or after 9 a.m.

## AEC Seeks Construction Bids on Sandia Lab Vibration Facility

Bids are scheduled to be opened next week by the AEC for the construction of a new Random Motion Vibration Facility in Area III.

The new facility will be used to subject components to severe vibration equaling the internal environment of rockets and jets. Heart of the facility will be a huge “shaker” capable of supplying 25,000 lbs. of force and handling test units weighing up to 2,000 lbs.

Construction will include a reinforced concrete structure of approximately 2,000 sq. ft. and covered with dirt fill on one end. The project will include installations for lighting, power, heating and other support facilities.

Estimated cost range for building construction is \$150,000 to \$175,000. Bids will be opened about May 7 and work is to be completed within 200 days after the contractor receives notice to proceed.

Project engineer for the Test Laboratory Department 1610 is John Christian (1613).

One unique feature of the new Random Vibration facility will be its ability to accept taped tele-

metry data from field flight tests of missiles and duplicate the recorded vibrations.

Three basic types of vibration tests will be performed in the new facility—sinusoidal or continuous vibrations of equal strength and time, complex vibrations which are the repetition of patterns of vibration, and random vibrations that have no patterns of repetition. Combinations of all of these types will be possible also.

Equipment to be installed in the facility includes the shaker, power amplifier, a local control console inside the building, a remote control some 1,500 ft. away in another shelter and a closed circuit television system.

Preliminary layout and design criteria for the facility were prepared by Plant Engineering Department 4540. The contract for construction will be awarded by the AEC. Project engineer for Plant Engineering Department is Vernon E. Kerr (4543). Lawrence A. Garcia was awarded the architect-engineering contract by the AEC.

## Sandia President Backs Savings Bond Campaign

To All Employees:

As people deeply involved in various aspects of the nuclear weapons program we have a unique insight into the defense needs of the country. Our knowledge of the job we do here at Sandia also gives us a very real idea of what national security costs.

Purchasing U. S. Savings Bonds is another opportunity for us to help get this defense job done. Not only does the purchase of bonds mean savings to the individual, but investing regularly by payroll deduction in U. S. Savings Bonds adds considerably to the financial strength of our country.

Some 900 Sandia employees have been investing in Savings Bonds during the past year. They are experiencing the satisfaction of saving and serving their country at the same time. I urge all of you to consider the advantages of participating in the Savings Bond program.

Not long ago, S. P. “Monk” Schwartz, Vice President and General Manager, attended a special conference sponsored by the U. S. Treasury Department in Washington, D. C. He heard President Eisenhower and top men in the government describe some of the undertakings which are made possible through the sale of bonds. He came away from the conference more impressed than ever with the importance of the bond program to our national security and the strength of our economy.

Mr. Schwartz is Chairman of the Albuquerque “Share in America” campaign. Sandia employees have always been among the leaders in supporting worthwhile projects. Here is an opportunity to benefit both ourselves and the entire nation.

When Savings Bond payroll deduction cards are distributed next week you will have your opportunity to “Share in America.” Make the most of it.

Sincerely,

J. P. Molnar

J. P. Molnar  
President, Sandia Corporation

## Armed Forces Day May 9 to Feature Geodesic Exhibit ‘Sphere of Science’

Sandia’s “Sphere of Science” will have its formal opening next week, with the participation of Sandia Laboratory in the Space Symposium for science students on May 8 and Armed Forces Day on Saturday, May 9. The geodesic dome is located east of the Personnel Building.

Featured in the opening exhibit will be a dozen scientific displays ranging from a demonstration of how the building itself is manufactured and constructed to examples of how Sandia’s scientific work in fields of mathematics, physics, engineering and optics. Sandia’s “Thunderbird Theater” will form the center attraction, where movies of technical activities will be shown continuously.

ties will be shown continuously.

As in previous years, the military commands will bring in a wide variety of ordnance materiel. Sandia Base will have its show in the morning, 9 a.m. to noon, and Kirtland’s program will begin at 1 p.m.

A festive air will surround the geodesic dome with the erection of a series of flag poles bearing pennants which spell out “SANDIA” when the breeze blows. Guests will enter the building through a huge Thunderbird surrounding the doorway.

John Leslie (4731-2) is general chairman of the Armed Forces Day program for the Corporation.

Editorial

Know Your Economics?

Everyone likes to think he knows the basic facts concerning the world about him. Most of us know many things — in a general sense. People nowadays are not ill informed about matters in general.

But how about the specifics which are so important to us? How about those things which have such an impact on our everyday life, our family budget, our taxes, our money-in-the-pocket?

Here are 10 questions on the economic facts of life. How many can you answer correctly? A score of all correct would be most unusual, eight correct quite an accomplishment, half right, so-so. If you have a score of less than half right it might be a good idea to brush up using the youngster's high school economics textbook. In fact, it might be a good idea to do some review if you miss any.

Correct answers, as supplied by the University of New Mexico College of Business Administration, are on the lower half of this page.

Now, the questions.

1. Define consumer price index.
2. What causes inflation?
3. What is gross national product?
4. What is national income?
5. What causes "tight money"?
6. What is meant by "cheap money"?
7. What is meant by progressive taxation?
8. What is farm parity ratio?
9. How does the government soil bank operate?
10. What is the difference between stocks and bonds?

Mrs. Robert Hopper Selected President Of Sanado Club

The Sanado Club has elected Mrs. Robert Hopper as president for the coming year, succeeding Mrs. T. L. Pace, the group's first president.

Other successful candidates in the club's first election were: Vice Presidents Mrs. William S. Sharp, programs, Mrs. C. B. O'Keefe, membership, Mrs. J. C. Hart, hospitality, Mrs. L. D. Swanson, interest groups, and Mrs. T. M. Cowles, welfare; Mrs. P. J. Broullire, secretary, and Mrs. J. J. Flanigan, treasurer. Honorary members of the Board of Directors are Mrs. J. P. Molnar and Mrs. K. F. Hertford.

The appointment was also made of Mrs. W. A. McCutchan as editor of the Sanado Newsletter and Mrs. B. J. Benjamin as assistant on publicity for interest groups.

In the past year the club has established nine interest groups and preparations are underway to add still another, "Southwestern Homemaking."

Climaxing a full schedule of monthly meetings and programs will be a formal dinner dance for Sanado members and their guests tomorrow evening at the Coronado Club. Mrs. Ray Stone is general chairman for the ball, which will have a "colonial" theme.

Wedding Anniversary

Celebrating their 21st wedding anniversary on April 25 were Anne (4722-1) and Charles (AEC) McCullough. The couple has two children, Jeffrey, a freshman at the University, and Sandra, who attends Sandia High School.



Carolyn Kersey (8231-2)

Take a Memo, Please

Walking on unpaved areas of the grounds is always risky in any kind of weather. Women can compound the risk by wearing spiked heels. A fall could be painful and mean time lost from the job.



TOP OFFICERS recently elected to head the Sanado Club include: Mrs. C. B. O'Keefe; President Mrs. Robert Hopper; Mrs. W. S. Sharp and Mrs. J. P. Molnar, honorary board member.



COMPLETING THE SLATE of newly-chosen officers for Sanado Club for coming year are: (L to R) Mrs. T. M. Cowles, Mrs. J. C. Hart, Mrs. P. J. Broullire, Mrs. L. D. Swanson, Mrs. J. J. Flanigan.

Get Well Wishes

Get well wishes are sent to R. R. Petrini (4232) and Adolfo Sanchez (4233), who are recuperating from surgery.

Also convalescing is Onesimo Martinez (4121-2), who was injured recently while on his vacation.

Wishes for a speedy recovery are extended to Bob Lausche (4254-2), who is recovering from surgery.

Wishes are extended to Bea Kenagy (4740) who is recovering from her recent illness.

Sets Bowling Record

John Lucas (8114-3), with only six months of bowling experience under his belt, scored a league high game of 244 on the Livermore alleys recently.

New Home

Mr. and Mrs. Ronald Williams will be moving soon into their new home at 324 Conchas Dr. NE. Ron works in 4412-3 and Marian is in 4623 presently assigned to 1261.



EAGLE SCOUT John Alexander and proud parents Mr. and Mrs. F. C. Alexander, Jr., following recent award ceremony.

Eagle Scout Award

John Alexander, son of Mr. and Mrs. F. C. "Ted" Alexander, Jr., (4211) was made an Eagle Scout at a Court of Honor held by Troop 6 on April 21 at the First Congregational Church.

At the same ceremony John's younger brother, Robert, attained the rank of Life Scout.

The Alexander family has been active in Scouting for some time. Mrs. Alexander was a Den Mother for four years and Ted has been Cubmaster of Pack 6 and Chairman of the Committee of Troop 6 for 10 years.

Weddings and Engagements

Best wishes are extended to Leah Blickenstaff (4722-1) on her marriage to Guy Bailey of Phoenix, Ariz., on April 25. She has been employed here nearly five years.

Margaret Armijo will be married tomorrow in Our Lady of Belen



Margaret Armijo

Church in Belen to A/IC Arthur S. Tanaka.

After a honeymoon in California the couple will be at home at 422 Yale SE.

Margaret has worked at Sandia (4761-1) for seven years.

Picture Surprise

Ruth Cowham (1222) opened the Albuquerque Journal the other morning to a five column picture of her daughter, Betty.

A local bank wanted to use a photograph of a four-year-old girl with bangs and long hair in an advertisement. A photographer spotted Betty in a nursery and decided she met specifications.

Gives Tech Writing Talk

The supervisor of Sandia's Technical Information Division, W. F. Carstens (4723), spoke before the Rocky Mountain Chapter of the Society of Technical Writers and Editors in Denver, Colo., last Friday.

Mr. Carstens discussed teaching technical writing to scientists and technicians on the job.

Library Ass'n Officer

At a recent convention in Alamogordo, William H. Richardson (4721-1) was elected vice president of the Special Libraries Association, Rio Grande Chapter.

Also at the meeting Charles W. Sargent was elected chairman of the College, University Research and Special Libraries Section of the New Mexico Library Association for the year 1959-60.

Dorothy Vass is the new assistant editor of Special Libraries Association, Rio Grande Chapter Bulletin. All work in Technical Library Section 4721-1.

Congratulations

Born to:

Mr. and Mrs. William H. Richardson (4721-1) a son, Clayton Howard, on April 4.

Mr. and Mrs. J. I. Hegge, Jr., (1470) a son, William, on April 7.

Mr. and Mrs. Jack Tischhauser (5242-3) a son, Robin, on April 20.

Mr. and Mrs. Glenn L. Riggins (5243-3) a son, Michael David, on April 20.

Mr. and Mrs. Floyd H. Jean (1452) a daughter, on April 23.

Mr. and Mrs. George Janser (1464) a son, Richard Lee, on March 31.

Mr. and Mrs. R. M. Hargreaves (8151-2) a daughter, Cheryl, on April 11.

Mr. and Mrs. Orval Talley (4231-3) a son, Randy Dean, on April 19.

Mr. and Mrs. Cliff Taylor (4254) a son, Steven Patrick, on April 14.

Mr. and Mrs. Howard E. Frankel (4964) a daughter, Vici Lynn, on April 18.

Mr. and Mrs. Paul Spencer (4411-6) a son, Robert Lee, on April 20.

Mr. and Mrs. Richard Womelsdoff (4961) a daughter, Karen Gay, on April 11.

Mr. and Mrs. Charles H. Stockley, Jr. (5232) a daughter, Heidi Marie, on April 19.

Answer To Quiz On Basic Economics

Look at the editorial first. Take this quiz, then check your answers here. **Consumer price index:** A set of figures collected and released by U. S. Government which measures changes in prices of 300 items bought by families of wage earners in 46 cities. The period 1947-1949 is used as a base period with an arbitrary index figure of 100 set to measure prices of that period. The figure quoted by the government each month is the percentage of that 100.

**What causes inflation:** It usually results when the amount people want to spend increases more rapidly than the supply of goods and services offered for sale.

**What is Gross National Product?** It's a measure of the nation's total economic activity based on these categories of spending: amount of money spent for food, clothing and the rest of family living; amount paid for new homes; amount business invests in new plants, equipment and inventories plus replacement of depreciated capital assets; amount governments spend to pay employees, buy goods, buildings, armaments; amount U. S. exports exceed U. S. imports.

**What is National Income?** Net amount earned by working people and property owners before payment of personal taxes.

**What causes "tight money"?** Greater demand for borrowed money than is available at any one time at prevailing interest rates.

**What is meant by "cheap money"?** Two meanings are attached to this term: it may be money that can be borrowed at a low rate of interest or it may be money that has less purchasing power.

**What is meant by "Progressive Taxation"?** The greater the income the greater the rate of taxation.

**What is farm parity ratio?** It measures whether farmers are better off or worse off than in a base period of the years 1910 to 1914. To get the parity ratio the government divides the prices farmers receive by prices farmers pay, as measured by these two indexes:

1. Index of prices farmers receive for 52 different crops and products.
2. Index of prices paid by farmers for clothing, food, fertilizer, machinery, feed, livestock and other items needed for production of farm crops. Also included are costs of farm taxes, wage rates and interest rates.

**How does government soil bank operate?** The government pays farmers for non-use of land to cut down big surpluses in such products as wheat and cotton. The government suggests that farmers put this land in a cover crop that will conserve the land for future use.

**What is the difference between stocks and bonds?** When you buy stock in a company you buy a part of that company. When you buy bonds from a company you are lending them your money.

Sympathy

To W. F. Leverenz (4253-1) for the death of his father April 15 in Albuquerque.

To Ruth Hunt (4211-1) for the recent death of her father in Indiana.

Air Enthusiast

Age is no barrier for the young in heart. Mrs. J. O. Keefover, 80, took her first plane trip recently to visit her grandson, Ed Jenkins (2721-3). After arriving in Albuquerque her first remark was that lots of Model T Ford rides had been rougher.

Chess Champ

Tom Corps (1472-1) recently won the Department 1470 chess tournament. He defeated six players and lost to only one.



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# Sandia Personnel on Program Of IRE Regional Conference

A field trip to Sandia's Area III, a keynote speaker, technical papers by four employees, an exhibition booth, chairmen for three sessions—all these are ways in which Corporation members of the Institute of Radio Engineers will participate in the forthcoming Seventh Region Conference.

The technical programs and electronics exhibit, sponsored by the IRE's Albuquerque-Los Alamos Section, will be held May 6, 7 and 8 at Johnson Gymnasium on the University of New Mexico campus.

General conference theme is "Electronics in Science" and the technical sessions will be: The New Electrical Engineering Education; Instrumentation for Space Research; Electronics and Thermonuclear Research; Instrumentation of Nuclear Explosions, and Electronics for Space Medicine.

Technical sessions will open Wednesday with keynote addresses by some of the nation's leading experts on each of the Conference topics. The chairman will be G. A. Fowler, Sandia Vice President Research and Director of the IRE's Seventh Region. One of these speakers will be D. B. Shuster, Nuclear Test Division Manager (5230), who will talk on "The History of Instrumentation of Nuclear Explosions."

He will discuss the revolution in instrumentation technology brought about by the Trinity nu-



TECHNICAL PAPERS to be presented during "Instrumentation of Nuclear Explosions" session at IRE conference are given a last look by C. E. Ingersoll (5231) (left) and F. B. Brumley (5223).

proximity of the nuclear device. Two of the major problems involved are the time scales in which such systems must operate, and the environment in which they must operate."

### Instrumentation Talk

H. E. Hansen (1231-1) will discuss "Microbarograph Instrumentation."

The abstract notes: "Microbarograph instrumentation is a device used during nuclear testing for predicting blast effects at relatively great distances. The system used by Sandia Corporation for quantitative measurement of the acoustic energy is basically a sensitive pressure recording device. Some of the unique features of the system, in-

cluding sensitivity, dynamic range, acoustical and electrical filtering, built-in calibration, and gain compensation, are discussed."

The second session on "Instrumentation of Nuclear Explosions" on Friday afternoon will have as its chairman T. B. Cook, Jr. (5111). The final session Friday on "Electronics and Thermonuclear Research—II" will include a paper by F. W. Neilson (5133) on "Exploding Wires for a Megajoule Capacitor Bank Protective Fuse."

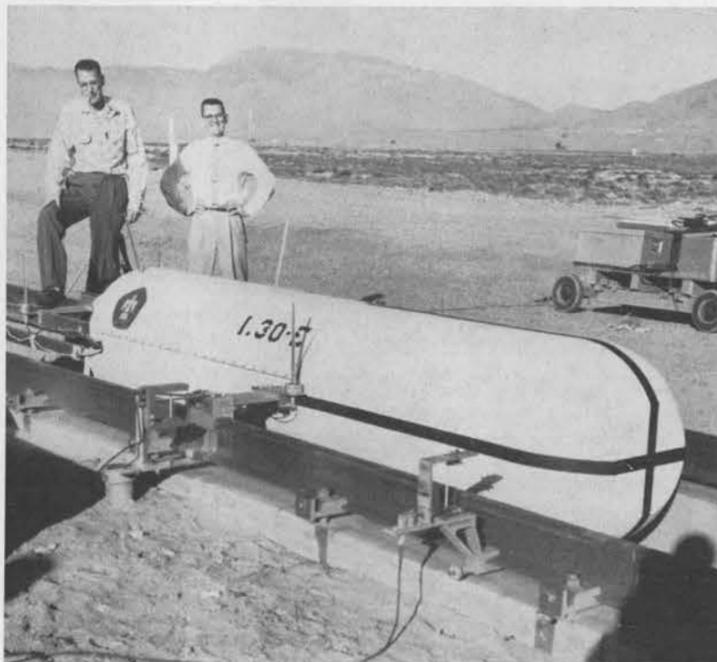
According to the abstract: "One of the problems of multimegajoule low impedance capacitor banks is a protective fuse to prevent the violent explosion which would result from the discharge of the bank into a faulted capacitor. Initial design criteria and operating characteristics of the exploding wire fuse have been studied by means of high speed framing camera photography and current oscillograms."



H. E. Hansen F. W. Neilson

The Electronics Exhibit will be open to the 2000 expected conference registrants all three days and on Wednesday, May 6, from 7-9 p.m. the showing at Johnson Gym will also be open to the general public. There is no admission charge.

In addition to the outstanding



ROCKET SLED, which can be accelerated to velocities up to 2100 ft. per second on its track, will be one of the environmental test facilities at Area III visited by persons attending the IRE Seventh Region Conference. Leon Day (left) and Chad Looney (both 5254) are project engineers for the sled. Tour will be on May 7.

## Sled Track Group Meets At Sandia

Representatives from rocket sled installations throughout the United States are meeting today at Sandia to discuss aspects of rocket sled design.

The two-day meeting is the second quarterly gathering of the Structures Working Group of the Inter Services Track Conference (ISTRACON). The group is responsible for setting up criteria for rocket sled design and is currently preparing a Track Vehicle Design Handbook.

Members of the group attending the meeting are D. L. Krenz and W. H. Cross (1615); D. W. Bauer (1613); E. Coleal, Edwards Air Force Base, chairman; Robert Walker, Edwards Air Force Base; A. T. Robinson, P. Ankeney and L. P. Gulick, Naval Ordnance Test Station; John Burrus, Coleman Engineering; R. F. Chandler and M. R. Wolfson, Holloman Air Force Base.

## J. F. Sladkey Runs for Livermore School's Board of Trustees

J. F. Sladkey (8121-1) is taking his first crack at office seeking this spring. The Test Design Section supervisor is a candidate for the Board of Trustees of the Livermore Elementary Schools. The election to fill two board seats will be May 19.

Joe's reason for trying to get into public life: "Education is becoming more and more important," he says, "and I've got a daughter in elementary school and another youngster who will be ready to attend before too long."

display of commercial equipment, a section of the exhibit space has been set aside for the use of government-sponsored laboratories in New Mexico working in atomic, medical and space research.

Sandia Corporation's booth will contain a small model of the APAR (Automatic Programmer and Recorder), a versatile electronic device which makes possible the automatic testing of reliability of nuclear weapons and components.

Another item on display will be a Data Amplifier, which transforms physical conditions into common language for assimilation by the APAR, and still another part of the exhibit will be the Sandia designed and built Multi-Dimensional Associator. The primary application of this mechanism when it is put into operation will be for retrieving speedily information from large volumes of commercial catalogues.

The Sandia booth, set up by the Public Relations Division (4731), will also include a photo display and literature will be handed out.

## Supervisory Appointment

ROY J. WILCOX, to supervisor of Section 8114-1, Drafting Division.



Roy joined Sandia Corporation at Albuquerque in 1955, where he was a checker in the drafting organization. After his transfer in September,

1957, Roy was a checker and project draftsman until his promotion.

He worked for the Eidel Manufacturing Co. in Albuquerque from 1950 to 1955, as chief engineer. In 1952 he was chief engineer and yard manager for a rust-proofing company in El Paso, Texas. He was a tool and product designer for the Parker Pen Co. from 1944 to 1950.

A native of Janesville, Wis., Roy served in the Army during World War II.

## Technical Societies Council Conducting Visits to Schools

Selected high schools within the Sandia area are being visited by members of technical societies to encourage careers in science and engineering.

The program is sponsored by the Council of Scientific and Technical Societies.

John C. Cunningham (1542-2) spoke to about 30 students at West Las Vegas high school on April 23, using a film by the American Society of Mechanical Engineers to illustrate his talk. Later in the day he spoke to engineering at the Espanola high school.

Other Sandians who have participated in the program include: John W. McKiernan (1283), who spoke at Espanola and Santa Cruz; R. C. Maydew (5142), who advised teen-agers at Mountainair, and A. J. Clark, Jr. (1232), who visited the school at Elida.

E. H. Copeland (1471) is serving as chairman of the Council's Educational and Guidance Committee this year.

## Horseshoe Pitchers Plan to Organize

First meeting of the Albuquerque Horseshoe Pitchers Association will be held Monday, May 11, at 7:30 p.m. in the Community Room of the new Central Branch of the Albuquerque National Bank, 4401 E. Central.

Purpose of this meeting is to organize an Albuquerque Horseshoe Pitchers Club, which would work on such projects as getting city courts with lights, sponsoring city tournaments and promoting interest in horseshoe pitching.

Any person interested in attending this meeting may contact Parker B. Burns (4741), ext. 28261, for further information.



## RING THE BELL FOR MENTAL HEALTH GIVE!

The Albuquerque Association for Mental Health is conducting its initial fund drive May 11 in a doorbell ringing campaign. Over 2,000 women volunteers will be participating. The organization does not share in Sandia's Employee Contribution Plan.



D. B. Shuster  
—Keynote Speaker—

clear explosion in 1945 and the improvements in various electronic and optic fields still in progress.

### IRE President Speaks

The All Industry Luncheon at noon at Western Skies Hotel will feature a talk on "Dynamics of Engineering Education" by Dr. Ernst Weber, President of IRE and President of the Polytechnic Institute of Brooklyn.

S. C. Hight, former Sandia Director of Research now with the Advanced Research Projects Agency in Washington, will be chairman of the "Instrumentation for Space Research—I" session Wednesday afternoon.

The "Instrumentation of Nuclear Explosions—I" session Thursday morning will have as its chairman C. B. McCampbell, Jr. (5232), and papers will be read by three Sandians.

F. B. Brumley (5223) will discuss "Nuclear Radiation Detection and Its Relation to Modulation Circuitry."

According to the abstract of his paper: "Gamma-ray detectors are used to produce a signal that is a function of the growth rate of a nuclear explosion. A broadband microwave transmitter transmits this signal to a remote location for recording. The modulation requirements for the microwave transmitter influences the design of the gamma detector. Compatibility is achieved by proper design by the gamma detector and the related modulating circuitry."

C. E. Ingersoll (5231-3) has entitled his paper "High Time Resolution Telemetry by Microwave RF Link."

This paper deals with "the telemetry of information relative to nuclear detonations from the

The Inquiring Reporter Asks . . .

# What are Your Reasons for Buying U. S. Savings Bonds?

"I have seven grandchildren and I invest in U. S. Savings Bonds with their future in mind. To me buying bonds means security. Later on, when I retire, the money will come in handy. These days, buying bonds means security for everybody."



CY BRADY (4742)

"I buy bonds with no definite goal in mind. I consider it a very good investment and with my extra money in bonds, it keeps me from making bad investments. Bonds are definitely the safest investment. I have a 15-year-old daughter. She will be going to the University soon. This may take a part of my savings."



JOHN BODENE (2532-1)

"I save a small amount each week by payroll deduction. I don't miss it from my check now and I know that later it will come in handy if there is any emergency. I think that we should have faith in our country and do what we can to help out."



RUTH LILLEY (4762-2)

"I buy bonds first of all because it's a very good method of saving for the education of my children. There is no easier way to save than by payroll deduction and it means security for my family. The investment pays a good return and helps our government. What better reasons are there?"



ORESTE GANZERLA, JR. (4763)

"I like to think of it as an investment in America. Like all good business investments, it pays a good return. It's a personal savings plan, too. I'm providing for the future. I think that investing in the government is the foremost purpose, however."



GINO CARLI (1542)

## Paper by Two Sandians Presented to Canadian Instrumentation Conference

A technical paper by W. H. Cropper and A. W. Snyder (both 1626-3) was presented last week at the Sixth Tripartite Instrumentation Conference at Chalk River, Ontario, Canada. The paper was published as part of the minutes of the conference.

Entitled "Radiation — Induced Effects at High Doses, and Applications to Reactor Gamma Dosimetry," the paper describes a study performed in the Radiation Effects Division 1626.

The general problems of reactor gamma dosimetry are discussed and directed towards simple

"total" dose measuring devices. It is indicated that the chief problem is to discover a reproducible measurement which continues to change in the high dose region encountered in a reactor field.

Various systems and effects which have been studied at Sandia and other laboratories are described in terms of the fundamental processes involved. These include chemical effects in solutions and pure solvents, color center formation in gasses, luminescence degradation and cross linking effects in solid polymers and gas-phase reactions.



TONOPAH BALLISTIC TEST RANGE currently uses this dry lake bed as a target. In the foreground is a theodolite camera station. Twenty-one new instrumentation and camera stations similar to this will be constructed on the range along with

other major improvements. The \$700,000 expansion program was announced recently by the AEC. The new concrete target pad will begin on the right side of the lake bed about where this picture ends. Shaped like a huge "X," each leg will be 750 ft. long.

# AEC to Enlarge Sandia Operated Tonopah, Nev., Ballistics Range

Sandia Corporation Field Test facilities at the Tonopah Ballistics Range at Tonopah, Nev., will be expanded during the next six or eight months, the Atomic Energy Commission announced recently.

The new construction will include a huge "X" shaped concrete target pad, 21 camera and instrumentation stations, a metal range maintenance building, and additional roads.

Each leg of the concrete target pad will be 750 feet long and 220 feet wide. The legs of the "X" will be oriented along the two flight approaches.

### Camera Stations

The camera stations include six CZR-1 stations, each consisting of an 8x8 ft. prefab metal building with a concrete camera pedestal.

Four high speed Mitchell camera stations will be located at the ends of the target on the flight lines. The stations will be reinforced concrete pits. The cameras will take pictures of the drop tests by photographing mirror reflected images.

Two 70mm photosonic camera stations and three RO-1000 camera stations will be similar to the CZR-1 and Mitchell camera installations. These stations will be

located in the immediate vicinity of the concrete target.

Eight Contraves camera stations will be constructed. Each will have a concrete pedestal extending 20 ft. above ground to support the camera. Surrounding steel cylinders and astrodomes will be included. The Contraves stations will be located to provide coverage of both flight lines for photographing drop tests as well as for photographing rocket launchings and flights. An 8x12 ft. prefab metal building will be located at each station.

The metal range maintenance building will house a machine shop and instrument maintenance and assembly room, plus locker room facilities. A new 50,000 gallon water storage tank is included to supplement the existing 12,000 gallon storage tank.

A power distribution system consisting of conductors and terminations for the various camera locations will be part of the construction project.

### New Roads

New gravel surfaced roads will connect the various sites which are located in an area of about 10 miles around the target. Cost

of the project is estimated at \$700,000.

Instrumentation for the range was planned by personnel of the Instrumentation Service Department 5210 and Instrumentation Development Department 5220. Operational layout was designed to meet the requirements of the Field Testing organization 5200. D. G. Beatson (5216-1) is the Field Test project engineer.

Plant Engineering Department 4540 prepared preliminary plans and specifications. Ward Hunnicutt (4543) is the Plant Engineering Project Engineer. He prepared the preliminary drawings for the project and structural design criteria. B. R. Lorenzen (4543) prepared electrical design criteria and E. L. Drake (4543) prepared the mechanical portion. Plant Engineers perform liaison with the architect-engineering firm and check final drawings and specifications.

The architect-engineering contract was awarded by the AEC to the Clark and Register firm of Santa Fe. Final plans and specifications will be completed by the end of May.

A small number of Sandians from the Salton Sea Test Base will join the permanent Tonopah Test Range Section 5214-4. For most test operations, personnel from Field Operations Division 5214 at Salton Sea will operate the facility.

The Tonopah range was first used by Sandia Corporation on Feb. 8, 1957. Tests to study the ballistic characteristics of free falling shapes have been conducted at Tonopah and it has been the scene of Sandia's experiments with high altitude research rockets.

## Sandia Represented At Highland High 1959 Career Day

Sandians participated in still a third high school career day in Albuquerque April 22.

Taking part in the student counseling program at Highland high school were: Samuel McAlees (5144), aeronautical engineering; H. L. Rarrick (4961), biology; H. W. Maglidt (4560), business administration; Arthur Troum (1625), chemical engineering; R. E. Fisher (1621), chemistry.

P. A. Nicovich (4412), drafting; T. S. Church (1410), electrical engineering; John McLay (1455), electronics; Max Weber (5121), mathematics; E. H. Copeland (1471), mechanical engineering; V. O. Henning and Dorothy Lauer (both 4651), general clerical fields, and A. D. Kantz (5150), nuclear physics.



A. A. Amato

H. E. Burrell

J. M. Wahlenmaier

## Labor Leaders Endorse Savings Bond Campaign

To Our Fellow Employees:

It doesn't take much to remind us why we want peace. We know why every time we look at our youngsters. We know we must keep the peace.

But knowing isn't enough. It takes doing. And fortunately there is something we can do. We can help provide the money necessary to keep peace. Money for science and education to help make the peace lasting. And money saved by individuals to help keep our economy strong.

Our purchases of Savings Bonds, as a direct investment in our country, makes us all partners in strengthening the Peace Power of America.

*Alfred A. Amato*

ALFRED A. AMATO  
Office Employees  
International Union  
Local 251, AFL-CIO

*Harold E. Burrell*

HAROLD E. BURRELL  
Metal Trades Council  
AFL-CIO

*John M. Wahlenmaier*

JOHN M. WAHLENMAIER  
Local 27  
International Guards  
Union of America

# 'Whatdoneit' Mystery Results In Detective Studies for 1620

Gleaming electrical contacts, produced with utmost care, assembled with surgical cleanliness and hermetically sealed in inert atmospheres can still malfunction.

The exacting Sandia component environmental testing program revealed this possibility and, in the weapons business, every probability of failure has to be eliminated.

A detective assignment was handed L. M. "Lou" Berry, supervisor of Nonmetallics Section of the Materials Standards Department 1620. It was: Find out what was happening to the contacts and find a way to prevent it.

The problem was found to be a matter of hygiene on the microscopic scale.

The solution was to remove foreign material from the contacts after assembly and prevent subsequent deposits collecting before the component is used.

"The determination of proper contact hygiene quite often varies with component design and must be considered on an individual basis," Lou Berry says. "One of the first components investigated will serve as a typical example."

Certain relays began to fail in their environmental testing. First step of the investigation was to transfer the microscopic particles on the contact surfaces to a small strip of plastic called a "replica." This is done by inserting the plastic between the contacts and applying heat until the plastic softens and collects the debris.

#### Microscopic Examination

Examination of the replica under a microscope revealed bits of insulation, lint, hair, epidermal scale and spattered drops of soldering flux.

A good cleaning procedure after assembly could remove most of the foreign material but the flux was being introduced during the sealing operation. Consultation with processing and metallurgy specialists led to a new sealing technique which kept the flux particles outside the container.

Further analysis of the contact contaminates was made by the Materials Analysis and Test Division 1622. They found that vapors



**MICROSCOPIC DEBRIS** on an electrical contact looks like this when magnified 108 times. The snake-like object in the center is a minute nylon fiber about 1/50th of an inch long. Other spots are metallic dust and foreign materials. Microchemists of 1621-3 detect and identify the debris and find means of avoiding it in the production of electrical contacts necessary for various components.

from one of the insulating materials had collected on the contact surface. This formed an insulating layer when subjected to adverse conditions.

A different and more stable insulation was utilized and the failure decreased.

Sometimes electrical contact problems require visits to manufacturers to determine why an increase of component failures has been noted.

"Incidents of this type usually are found to be the result of well-intended introduction of a new or non-specified material or process into a manufacturing operation," Lou says. "Close cooperation among the electrical contacts laboratory and design engineers, manufacturing engineers and suppliers has helped overcome these irregularities and has resulted in the introduction of new developments in production line techniques."

Laboratory investigations of

contaminating materials are performed by Lew Jones, micro-analytical chemist, and Don Fjelseth, technician. They also serve as consultants to design engineers and manufacturing engineers on "brush fire" problems that arise in component manufacture. The long experience of these men and their familiarity with microchemical problems sometimes enables them to suggest a solution after only a brief examination of the problem.

Materials and physical research programs for the electrical contacts lab are devised and performed by Ian Scott, electrical engineer, and Chris Schroeder, physicist. The two also provide the evaluation instrumentation required by the chemists.

Nearly every phase of technology is involved in some of the investigations and the assistance of scientists throughout Sandia Laboratory may be required before constructive suggestions are passed along to the requesting engineering personnel.

"This cooperation and interdependence has resulted in a gradual and positive increase in the reliability of components," Lou said.

## Sandia Lab News Reporters Meet; Charles Sargent Earns Top Award

The annual Sandia Lab News Reporter's Luncheon was held April 13 at the Coronado Club with top news gathering honors going to Charles Sargent (4721).

Certificates of appreciation were presented by J. P. Molnar, Sandia Corporation President, to reporters Max Weber (5121), Joanne Boyds (4250), T. J. Williams (1451), and Jim Tichenor (6021).

As main speaker for the luncheon Mr. Molnar remarked, "One of the nice things in coming in new on my job is to find out about all kinds of activities I never knew existed and meeting the people responsible for them."

In referring to Management's responsibility, Mr. Molnar said, "If we can convince our employees that Sandia is a good place to work and in that way gain their loyalty, everybody will be happier and I think we'll get our job done better for the AEC and our country."

"In my opinion, the Sandia Lab

News is an important contribution to that end. It helps us all find out what's going on throughout the Corporation, providing facts where otherwise rumors would prevail and distort the picture."

In addition to some 80 volunteer organization reporters, invited guests at the luncheon included: G. A. Fowler, Vice President Research; H. N. Snook, Vice President Engineering for Manufacture; Editorial Committee Members—Kimball Prince (6000), R. B. Powell (4001), L. J. Heilman (4700), R. J. Hansen (4200), L. J. Paddison (1500) and A. B. Machen (5300); F. E. Abbott (AEC-Sandia Area Office).

Lab News photographer Bill Laskar; W. A. Jenkins (8233-1); circulation managers Nick Tarnawski and Tony Lopez (both 4764); technical artists Dick Strome, Cecil Kinney, Rupert McHarney, Jim Walston and George Marks, and members of the Lab News staff.



SANDIA CORPORATION President J. P. Molnar presented engraved ice bucket to Charles Sargent (4721), in recognition of being "Best Reporter of 1958," during annual reporters' luncheon.

## Article by B. S. Biggs Summarizes Studies On Atmosphere Ozone Effects on Rubber

A technical article by B. S. Biggs, Director of Materials and Standards Development 1600, appears in the *Rubber Review* for 1958. Title of the article is "The Protection of Rubber Against Atmospheric Ozone-Cracking."

The editor of the *Rubber Review* asked Mr. Briggs to research and write the article. It is a survey of literature of the past 15-20 years on the subject of cracking of rubber by atmosphere ozone and of the new chemical developments to protect rubber from this attack.

Called antiozonants these chemicals, when incorporated in rubber before curing, "bloom" to the surface and react preferentially with ozone in the air.

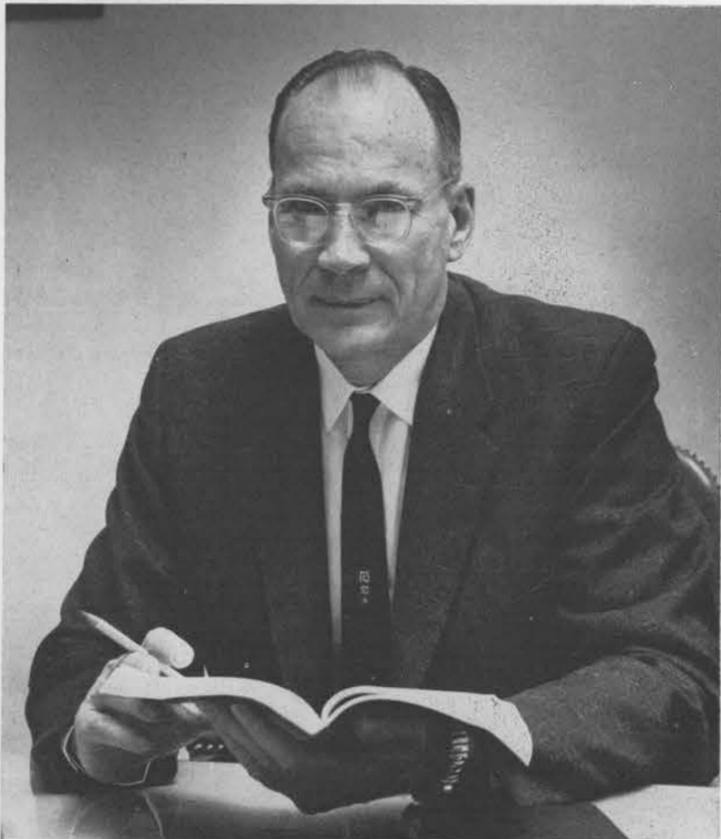
From more than 100 sources, Mr. Biggs summarized and reported the properties of antiozonants.

Mr. Biggs became Director of Materials and Standards Development at Sandia in December 1957, coming here from Bell Telephone Laboratories, Murray Hill, N.J., where he held the position of Assistant Chemical Director—Development. He was in charge of polymer research and rubber and adhesives development.

He holds patents on hydrogenation of coal, synthesis of dielectric compounds and organic intermediates, and on methods of stabilization of certain types of synthetic rubber.

He is the author of papers in the field of nitrogen bases from pe-

troleum, chemistry of coal, dielectric compounds, polyesters, polyamides, synthetic rubber, and deterioration of plastic and rubbers.



B. S. Biggs (1600)

—"The Protection of Rubber Against Atmospheric Ozone-Cracking"—



**CHEMICAL TEST** on an electrical contact is performed by Don Fjelseth. He is placing a very small drop of sodium oxide on the contact surface which will react if sulphide is present.



**BASIC TOOL** of the Microchemistry Laboratory is the microscope. Here Lew Jones studies a plastic replica specimen from a contact to optically analyze foreign matter on its surfaces. Area under observation is somewhat smaller than this period.

## Fred B. Tixier to Catch Up on Travel When He Retires

Fishing and hunting are the things Fred B. Tixier plans to enjoy now that he is retired.

Mr. Tixier retired April 30 after more than 10 years at Sandia. He was a toolkeeper in Division 4514.

"I was born in Clayton and spent all my life in New Mexico. Now my wife and I plan to catch up on our traveling," he explained.

Mr. and Mrs. Tixier live at 1811 Anderson Pl. SE. They have three children in Albuquerque, one in Santa Fe and one in Texas.

## Sandia Archers Meet Thursday, May 7, to Plan New Activities

A wildlife movie and future activities are on the program for the Sandia Archers meeting Thursday, May 7, at 7:30 p.m. in Bldg. 361, Room 315, on Sandia Base.

A club reclassification shoot to establish handicap will be held soon. Past activities have included a rabbit hunt and bow fishing.

Membership in Sandia Archers is open to civilian and military personnel on all three of the local bases. The facilities of the club include a fourteen-target field range and a known distance range on Sandia Base just to the west of the rifle range.

For further information contact Nick DeLollis (1625-1) ext. 47270.



R. Grant Howard and son Dale  
—Happy Ending to Near Tragedy—

## Father Gives Sandia Training Credit For Ability To Save Son's Life

The young engineer sat across the desk from A. Burton Metzger, Sandia Safety Engineering Manager, and told him, "You saved my baby's life last night."

The circumstances were entirely a mystery to Mr. Metzger until R. Grant Howard (2543) told his story:

"Last January when I attended tech orientation I remember you talked about artificial respiration in connection with electrical hazards. You said that the best method you knew was to place your mouth over that of the unconscious person and start breathing in. Think I even mentioned it to my wife that night after work.

"Last night my wife went to a friend's house about 7:30. Our 15-month-old son, Dale, was already in bed and my daughter and I were on the couch watching TV. As we sat there I thought I heard the boy cough very faintly. He's had a cold recently and it was not unusual to hear him cough, but I went in to check. His face was almost black and when I picked him up he was limp, unconscious.

"I laid him on the living room couch but panicked when I tried to dial the doctor—I dialed my own number. As I stood there I remembered Mr. Metzger saying 'mouth to mouth resuscitation seems a foolish way to save a person's life but it doesn't matter to the person whose life you save.'

"I leaned over my baby and started breathing in his mouth. I

blew in like I'd blow up a balloon released the pressure momentarily and repeated the cycle. In about five minutes his color was back and he was breathing.

"By then I was calm enough to call the operator and she in turn called our near-by fire department. I don't know how they got there so fast with their resuscitator. When I looked at the baby at 7:30 he was all right. Only 40 minutes later he was in the hospital under observation. Everything happened so quickly."

## Alchemist Club Students Visit Sandia Laboratory

Approximately 20 students from the Alchemist Club of the College of St. Joseph are touring a limited number of Sandia's technical facilities this afternoon.

They are going to Bldg. 830 to see Industrial Hygiene's facilities and Microchemistry Laboratory for improving the performance of electrical devices. Then they will view the Van de Graaff Accelerator in Bldg. 803.

Last Monday students from the University of New Mexico's Mathematics honorary society, Kappa Mu Epsilon, the Valley High Math Club, and the Academy for Boys saw the computer facilities in Bldg. 880. The group, numbering 60, also toured the Systems Analysis Department (5120), Test Data Department (5240) and the Electronic Data Processing Department (4750).

Both tours were arranged by Public Relations Division, 4731.

## Dr. E. B. Harrington To Address Members Of Meteorological Group

Dr. Eldred B. Harrington, coordinator of secondary education for the Albuquerque Public Schools, will be guest speaker at the American Meteorological Society dinner meeting tomorrow night at 7:30 p.m.

The meeting will be held at Eby's Restaurant. For further information contact Hugh Church (5111), ext. 33148.

**CTI Alumni Organize**  
Alumni of the Central Technical Institute, living in New Mexico, are in the process of organizing an official chapter.

J. A. Mauldin (2711-1) has been appointed chairman and Bob Sebold (1652-2) will serve as secretary-treasurer. Tentative plans call for the first organizational meeting later this month.

## Welcome Newcomers

April 13-24

Albuquerque		
*Joyce E. Breslin	4542	
Audrey L. Burns	2226	
Mary T. Brunacini	2731	
Marilyn J. Duliere	4623	
Barbara C. Ford	4623	
Clarence L. Himes	2234	
Wesley E. Kimbrel	4514	
Arlene M. Ortega	2562	
Jean H. Ramshaw	4623	
Shirley A. Schell	4623-2	
Jean M. Schuster	4623-6	
Lydia I. Trujillo	4623-3	
California		
Elizabeth Kennedy San Diego	8233-2	
*Auri B. Moore, Palo Alto	4541	
Harold T. Vincent, Livermore	8121-2	
Bing K. Joe, San Francisco	8122-3	
Cedric D. James, Oakland	8232-2	
Fred P. Cerruti, Livermore	8121-2	
Patricia A. Wilson, Castro Valley	8212-3	
Patricia S. Cooper, Oakland	8212-3	
*Karol J. Scott, Livermore	8232-1	
Colorado		
Morris W. Mote, Jr., Arvada	8115-1	
District of Columbia		
Lawrence J. Overton, Washington	1615	
Florida		
John H. Temple, Jr., Ocoll	5243	
Indiana		
James C. Wallis, Muncie	2554	
Kansas		
Glen E. Loeppke, Kansas City	1217	
Nebraska		
Robert L. Kasperek, Schuyler	1652	
New Jersey		
Ronald J. Flury, Clementon	1245	
New Mexico		
Charles J. Tillman, Los Alamos	8223-1	
Howard A. Romme, Portales	4152	
*Robert E. Dunlap, Coyote	4720	
Texas		
Roy D. Sturkie, Irving	8122-2	
Virginia		
John T. Cowie, Fredericksburg	5216	
Washington		
Royal H. Barnett, Bellingham	1614	
James R. Hyde, Ephrata	8116-1	
* Denotes Rehired		
Returned from Leave		
Ralph W. Kelley, San Diego, Calif.	1611	
Lulu A. Nelson, Pleasanton, Calif.	8233-2	

## Calling for Bids To Modify Sandia Giant Centrifuge

Sandia's giant centrifuge facility in Area III is scheduled to receive modification according to an invitation for bids issued by the Atomic Energy Commission last week. Construction will include extending the concrete wall about 170 ft. to completely surround the centrifuge

Backing up the wall will be an earth barricade which will enclose a reinforced concrete shelter. The modification will include work on high pressure oil lines and the relocation of power wiring.

New roofing for Bldgs. 904 and 907 in Area II will be part of the same construction contract. Estimated cost range for the entire project is \$50,000 to \$60,000. Bids will be opened May 28 and work is to be completed within 130 days after the successful contractor receives notice to proceed.

Preliminary layouts and design criteria for the project were prepared by Sandia's Plant Engineering Department 4540. The contract for the work will be awarded by the AEC.

## Tech Council Meets Monday, May 4

New Mexico Council of Technical and Scientific Societies will meet Monday, May 4, at 7:30 p.m. in the Warehouse Building conference room at the University of New Mexico.

H. R. Hanen (2551) has been elected secretary of the Council and will serve until the end of this fiscal year.

### VOLLEYBALL STANDINGS

Team	Won	Lost
1200-III	10	0
1200-II	9	1
5100-II	9	1
1400	8	2
1600-II	6	3
1200-I	5	5
4600	3	3
1600-I	4	5
5100-I	4	5
5200	3	7
5500	3	7
4300	0	8
4400	0	9
Comb.	0	9



Sandia Corporation's current safety record of 45 days without a disabling injury ended Tuesday, April 21.

## HERE'S WHY...

While two men were handling a glass show case, the case shifted and the glass broke. The right arm of one man was severely lacerated; the other man incurred minor injuries.

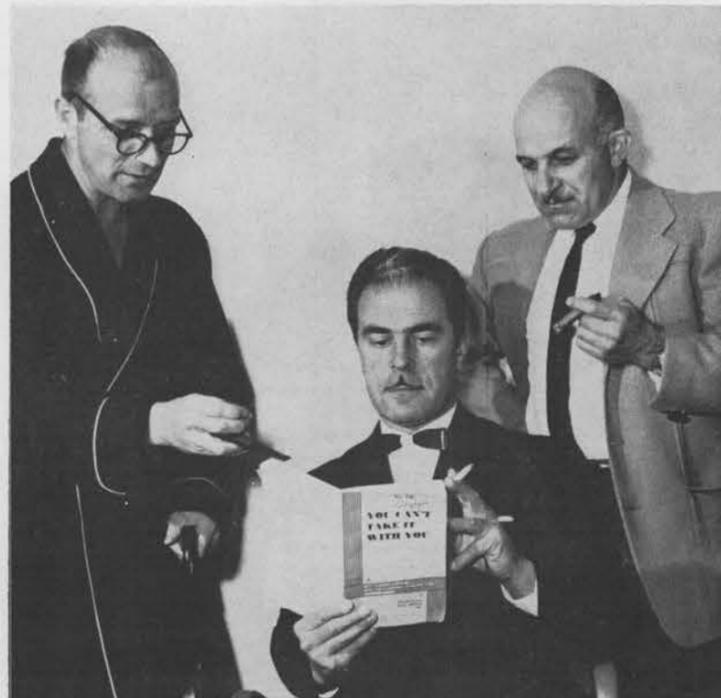
## Cask and Mask Players to Present 'You Can't Take It With You'

Livermore Laboratory's off-hour thespians will display their talents in "You Can't Take It With You" May 14-16. The Kauffman and Hart Broadway hit will be presented in the Livermore High School Auditorium.

Mike Gregory (8115-2), cast in the role of Mr. Kirby, an autocratic Wall Street financier, has been active six months in the local little theatre group known as the Cask and Mask Players. His wife, Virginia, will play the feminine

lead. Les Rowe (8220) will play her stage husband.

A rather surprised Bob Weaver (8115-2) plays the father-in-law. Bob attended tryouts several weeks ago with Mike. Just for fun, he read the part of "Grandpa," thinking it would be a simple walk-on part. Before he knew it, the director of the play assigned him to be the eccentric, philosophizing male lead who is on stage almost continuously in the three-act play.



IT'S IN THE BOOK—So say Livermore Laboratory's part-time actors. Appearing in "You Can't Take It With You" are, L to R: Bob Weaver, Mike Gregory (both 8115-2), and J. L. Rowe (8220).

## Tom Vigil Dies; Funeral Services Held Last Monday

Funeral services were held last Monday for Tom Vigil, 51, who died April 23.

Mr. Vigil was a wireman in the electrical assembly organization (4233-1) and had been employed at Sandia Corporation for seven years. He had been off work for the past two months.

Survivors include his widow, two daughters and a son, all residing at 2217 Frederick Place NW.

## Paladin Turns Medic To Tell Dramatic Story 'Flash of Darkness'

"Flash of Darkness," a civil defense film, will be shown Sandia Corporation employees at 12:15 p.m., Monday, May 4. The program is a presentation of the Sandia Defense and Disaster Committee.

Originally produced as one of the "Medic" television series, the film brings new understanding of the situation people would face during and after a nuclear attack. Richard Boone (also of Paladin fame) portrays a doctor who is called out of his afternoon routine by an air raid alert.

His experiences in a long and desperate night are told in the film.

The movie will be shown in the basement of Bldg. 802, Room B-8.

## Burst Studies Talk Given by T. B. Cook

T. B. Cook (5111) spoke to members of the New Mexico Chapter of the National Society of Professional Engineers at a dinner meeting held last Monday.

His topic was the "Relation of Engineering and Science in the Nuclear Burst Studies."

Mr. Cook joined Sandia Corporation in 1951 after obtaining his PhD degree in Physics from Vanderbilt University in Tennessee.

## Big Ten Alumni Buffet Dinner Friday, May 8

Annual buffet dinner and dance of the Big Ten Alumni will be held Friday, May 8, beginning at 6:45 p.m. at KAFB Officers Club. The Paul Muench orchestra will play from 9 p.m. to 1 a.m.

Alumni of Big Ten universities and their guests are eligible to attend. The universities include Indiana, Illinois, Iowa, University of Michigan, Michigan State, Minnesota, Northwestern University, Ohio State, Purdue and Wisconsin.

Reservations for the dinner should be made prior to May 4. Contact Jack Marceau (1411), ext. 52141, or Ben Petterson (5254), ext. 31149.

## Sandia Paper to Be Presented at Oklahoma State

A paper by R. C. Sadler (1463-1) and Dr. T. B. Thompson (summer hire in 1463-1 in 1958) will be presented in May at Oklahoma State University. The paper, "An Investigation of Relay Contact Resistance by Means of Voltage Current Characteristics," will be part of the program of the Seventh National Symposium on Electromagnetic Relays in Stillwater, Okla.

The paper describes a study of variance of contact resistance in electromechanical relays performed by the Switching and Explosives Development Division 1463.

## Two Unions Notify Sandia Corp. of Desire For Replacing Contracts

The Metal Trades Council and Local 251 of the Office Employees International Union have notified Sandia Corporation of their desire to negotiate replacing agreements.

The current agreements expire June 30 of this year. The first bargaining meeting with the Metal Trades Council has been set for Monday morning, May 4. The first meeting with the OEIU will be that afternoon.

# LRL Director Announces New Reorganization

Dr. Edward Teller, Director of the Lawrence Radiation Laboratory at Livermore, has announced a reorganization designed to keep the laboratory abreast of its increasing size.

Dr. Kenneth Street will leave his present post as Deputy Director to return to research work in Berkeley. He will be succeeded by Dr. Harold Brown, now an associate director.

Dr. John Foster, Associate Director for Nuclear Devices and Weapons, will be responsible for both the Laboratory's A and B Divisions.

The reorganization, effective May 15, includes the creation of three new associate directorships to be filled by Gerald Johnson, Theodore Merkle and Duane C. Sewell, all promoted to that level. The associate directorships and their directors will be:

Associate Director for Nuclear Devices and Weapons—Dr. Foster.  
Associate Director for Testing and Peaceful Applications of Nuclear Explosions—Dr. Johnson.

Associate Director for the Pluto Project—Dr. Merkle.

Associate Director for Project Sherwood—Dr. C. M. VanAtta.

Associate Director for Support—Duane Sewell.

## Club Bowlers Will 'Roll Off' Monday

Coronado Club men bowlers will play a "roll-off" for the league championship on Monday, May 4 at 7 p.m. Winners of the roll-off will bowl May 6 at 7 p.m. to establish the men's division championship.

The Jades, women's bowling team, won the championship in the ladies' division. They are in the Jewelette League.

# Service Awards Ten Year Pins



Leo E. Davies  
8151  
May 2, 1949



Dora E. Elick  
4518  
May 2, 1949



Samuel A. Moore  
1224  
May 3, 1949



James C. Hart  
4510  
May 4, 1949



Alfredo Pena  
4762  
May 4, 1949



Lloyd R. Wilson  
4574  
May 4, 1949



Raymond R. Russell  
4325  
May 5, 1949



Frieda P. Salazar  
5000  
May 7, 1949



Vern L. Brockway  
4511  
May 9, 1949



Arlington Perkins  
4742  
May 10, 1949



Lawrence L. Lowe  
4232  
May 13, 1949



Robert R. Bailey  
2236  
May 13, 1949

### Five Year Pins

May 2-15  
Naomi L. Myszkowski 1411, William B. S. Moore 4412, M. M. Messier 5556, R. B. Middleton 5542, James T. Brown 5511, C. A. Sullivan, Jr. 1464, Betty M. Hobbs 4762, Anthony Tova 6021, Jeremiah F. Donovan 1263, Robert E. Branks 4412, Edward J. Newfield 4742, Joseph A. Woodley 2731, Clarence L. Kassens 1247, Melba Sue Peters 2243, Earl E. Minor 5522, Clyde R. McElfresh 1463, Ernest E. Landavazo 4573, Louis W. Withers 1283, Georgia F. Howard 4623, Thurman H. Moyer 2713, F. Mary Bacon 4762.

### Two Year Certificates

May 2-8  
John R. Goff 2251, N. L. Porterfield 4623, Donna L. Weldon 2721, Maxine Drymon 4623, W. B. Shepard, Jr. 5534, John A. Silva, Jr. 1473, J. E. Cappuccilli 2226, Harry Olson 8115, Carl Deceasar 8113, Richard M. Kear 4762.

Flora M. Burch 4131, Arthur P. Leyba 2243, Betty L. Baumgarten 4653, Wanda M. Gross 2221, Joseph E. Sul 4233, Patricia R. White 4964.

Gladys M. Comolli 4752, Hubert G. Fifer 4412, Daniel H. Freshman 2562, Lois G. McDonald 4623, Kenneth A. Clark 1218, Henry Harada, Jr. 4411, Rodman N. Leach 5142, Ruth D. Way 4623, James F. Reid, Jr. 4543, Glenna C. Sikkel 5512, Joseph T. Pavelko 2713, Herbert F. Sisson 1263, Don N. Todd 1626, Marie E. Hannan 2723, Richard P. Striker 4412, William R. Entwisle 4763.

### May 9-15

Lewis G. Sisneros 4153, Lloyd I. Burright 4514, Ira T. Holt 5144, Frank J. Nistretta 1473, Doris J. Guernsey 4361, Verona M. Leuxman 4132, Armonia A. Gonzalez 4623.

Edwin T. Mackenzie 4232, Joan F. Pappas 4962, Thomas C. Corpe 1472, Richard E. Howell 1215, Eulogia H. Lopez 2722, Daris M. Fuller 4132, John Pas 1611.

## Test Engineering Growth in Space Age Is Related

"Evolution of Environmental Engineering," a technical paper by R. S. Hooper (1613-3), was presented at the annual meeting of the Institute of Environmental Engineering last week in Chicago.

The paper warned that new space-age environments do not automatically guarantee a phenomenal growth in the environmental engineering profession. Reasons that the profession has expanded so quickly were discussed by Mr. Hooper.

Sandia's Environmental Test Laboratory was used as an example of growth of the profession. Chief areas of change in the field are in equipment, in the responsibility of the environmental engineer and in the organizational structure of the laboratories. Causes for these changes were explored and suggestions were offered for the expansion of the profession into space-age environment.

## AWS Members to Hear Authority on Desalting Sea Water

Annual meeting of the Albuquerque Chapter of the American Welding Society will be held at La Placita dining rooms Thursday, May 14, at 7 p.m.

"Water for New Mexico" will be discussed by Dr. J. A. Shufle, associate professor of Chemistry at New Mexico Institute of Mining and Technology. His talk concerns the desalting of sea water.

New officers will also be installed at this time. For reservations contact Vince Nelson (1621), ext. 32246.

## ASQC Ladies Night Planned for May 11

American Society for Quality Control, Albuquerque Section, will observe Ladies' Night by holding a dinner meeting Monday, May 11, at the Sandia Base Officers Club at 7 p.m.

"New Mexico History" will be related by Gilberto Espinosa, a recognized authority on that subject.

Reservations may be made through Paul Wallack (2514), ext. 49247.

## Lovell Laboratory Head Will Speak to Radio Club Members

E. Earle Fletcher of the Electronics Laboratory at Lovell Clinic will speak at the Sandia Base Radio Club meeting Tuesday, May 12, at 8 p.m.

He will talk about and demonstrate the "New Heathkit Apache Communications Receiver and the Associated Single Sideband Communications Unit."

The meeting will be held in the clubroom, Bldg. T-319, on Sandia Base.

## ASME Meets May 13

Steve Reynolds, State Water Engineer, will speak to members of the New Mexico Section of the American Society of Mechanical Engineers at their annual banquet, Wednesday, May 13.

Mr. Reynolds will discuss the possible water shortage facing Albuquerque this summer.

The dinner will be held at the Coronado Club starting at 6:30 p.m. For reservations contact Robert Berry (1245), Ext. 43173.

### 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

MARVELLAIRE COOLER, window type, 2-speed, used only two months, \$50. Pappas, AL 6-9129 after 6.

2 BRM HOUSE, large kitchen, walled yard, new FHA loan, \$550 down. King, 2615 Morningside Dr. NE, AL 5-4008.

3 BRM HOUSE, corner fireplace, landscaped, drapes, carpeting, air conditioned, extra storage, den, 1830 sq. ft. Ross, AX 9-1526.

RELAX-A-CIZOR, with complete set of belts. Newell, AL 5-4470 after 4 p.m.

'50 MOTORCYCLE, Harley-Davidson "74", 22,000 miles, buddy seat, saddle bags, windshield, \$375 cash or trade for small car. Ankeny, AX 9-5320.

'54 PLYMOUTH, 4-door Belvedere, heater, power steering, standard transmission, 48,000 miles, \$850. Norris, DI 4-4643 after 5 p.m.

'54 CHEVROLET, four door sedan, R&H, plastic seat covers, Gatlin, AL 5-5391 after 6 p.m.

'56 FORD Ranchwagon, straight stick with overdrive, will trade equity for older car. Connolly, AX 9-1517.

10 WATT, 10 meter mobile transmitter, Ganset 10/11 converter, 6 volt magnator, and microphone, \$55. Bauer, AL 5-7774.

'52 NASH RAMBLER, 2-door, hardtop, R&H, overdrive, yellow and black. Whipple, CH 2-7425 after 5:30.

STROBE LIGHT, 225 watt-second AC w/3 cell Heiland flash gun, best offer over \$45. Davis, AL 5-4865.

AQUARIUM, complete w/fish, filter, pump, stand, reflector and gravel, \$30. Flores, AX 9-0856, 8716 Phoenix Ave. NE.

'57 CHEVROLET Bel Air, 4-door hardtop, factory installed air conditioner, Turboglide, power steering, R&H, \$1985. Villanueva, CH 3-8788.

10" T.V., GE, \$25; Smith-Corona portable typewriter, w/case, \$30. Shadel, AM 8-1846.

AIR LIFTS w/extension hoses, portable camping ice box. Waldorf, CH 2-8303.

OXY-ACETYLENE welding and cutting outfit, \$70; also 320 acres to trade for income property. Flowers, 1833 Kentucky NE.

'51 CROSLY STATION WAGON. Callahan, AX 9-3273.

DINING ROOM SET, table and four chairs, mahogany finish, includes hot pad and extra leaf for table, \$50. Moffat, Ext. 20173.

PARROT, Half moon dwarf, will talk, 2 years old, w/cage, \$35. Fisher, 1820 Gretta NE, AX 9-6469.

### NEXT

## DEADLINE

FOR SHOPPING CENTER ADS  
Friday Noon, May 8

REFRIGERATOR, Kelvinator 7 cu. ft., \$60; phono cartridge, Shure ML-44 w/sapphire needle, lists at \$14, yours for \$3. Anderson, Ext. 37251 before 4:30.

AIR CONDITIONER, portable Thermador, 3 gallon capacity, cost \$69.50, used one week, \$40. Roisman, AM 8-8795.

'55 CAPRI 28' house trailer, Monte Bello Trailer Court, 10804 Central SE. No. 5, make offer. Feliciano, CH 2-1967.

SOFA BED, Simmons, dark green, \$25; Cosco baby jumper chair, \$5; play pen and pad, \$7; Russell, AX 9-0159, 2820 Vermont NE.

COMBINATION wire recorder, play back, phono player and radio, \$15 as is. Ash, CH 3-1869.

FRENCH POODLE, black standard, about a year old, lively, lovable and friendly (to friends), \$25. Moore, AL 5-7891.

AMPLIFIER, 10 watt Grommes, new, Richardson, AX 9-3673 after 5:30 p.m., 11512 Love Ave.

POWER MOWER, 2 1/2 hp, 4 cycle, self-propelled, new blade and mulcher, \$40; new Dormeyer heavy-duty portable mixer, 8 speeds, \$15. Bentz, AM 8-8267.

16 GA. SHOTGUN, almost new, 5 shot, \$30 or trade for saddle. Harker, Ext. 39166.

'56 OLDS Super 88 4-door Holiday, power steering, power brakes, might take trade in, must sell. Dyer, AX 9-2142.

DOUBLE BED, Simmons, walnut box spring w/innerspring mattress, used, \$25. Haglund, AL 6-9452.

'55 VOLKSWAGEN, has 1957 engine, new pushbutton radio, new battery, 2 extra tires, \$1250 or best offer. Harding, Ext. 316-A.

HIDE-A-BED, Englander, \$75; bookcase, 4-shelf, wrought iron, \$10; Dunlap wood-turning lathe, 9x30", \$20; hi-fi preamplifier GE AL 200, \$25. Lawrence, AX 9-5559.

RIFLE, 220 Swift, F.N. Mauser Model 300. Hal Hartley custom stock, new, test fired only, \$150, will trade, Goens, Ext. 26241.

HOTPOINT RANGE, \$100; hand lawn mower, \$9; grass catcher, \$1; Buick heater, \$5; radio, \$5; other misc. items. Carl, AX 9-1924 after 5:30.

OSCILLOSCOPE, Eico Model 460 wide band, DC to 5mc, used less than 5 hours, \$60. Landis, AM 8-8472.

GIRLS 26" Bicycle, J. C. Higgins, thorn proof tires, \$20. Hake, AX 9-3940.

TWO WHEEL trailer, 4x7 ft. w/lights, \$40; radio, \$5; 40" cabinet sink w/fixtures, \$30; assorted new kitchen cabinet hardware. Stephenson, AL 5-9822.

3 BRM HOME, Hoffman Royal, 1 1/2 baths, den, garage, circular drive, drapes, shades, carpeting, disposal, dishwasher, Preston, AX 9-1948 after 5:30 and weekends.

'58 PLYMOUTH, 6 cylinders, 2-door Plaza, 13,000 miles, conventional shift, \$1695 or will trade. Shroka, Ext. 23280.

'58 FORD, 2-door, 6 cyl., overdrive, R&H, Custom 300, two-tone green & white, \$1700; complete set mechanic hand tools w/cabinet \$150. Brooks Ext. 29143.

TWO WHEEL utility trailer w/spare \$50; see at 329 Alcazar St. NE. Bauer, AX 9-4688.

BOY'S BIKE, 20", \$18.50; electric hair clipper, \$6. Goris, AX 9-2924.

3 BRM HOME, 1 1/2 baths, dining room, fireplace, air conditioned, carpeted and attached garage. Heuer, AL 5-6158, 927 Jefferson St. NE.

3 BRM HOME, Mankin, large corner lot, pitched roof, garage, carpeting, draperies, \$1800 FHA, occupancy June. Cowley, AX 9-6674, 1003 Wade NE.

CARTRIDGE BELT w/holster for 4 inch barrel revolver, \$5; camera, Zeiss Tessar 2.8 lens, \$20, will trade. Schowers, AL 5-9279.

PORTABLE WASHING machine; Hamilton Beach mixer w/attachments; blue formal, new, size 20. Lowe, AX 9-7725, 11404 Bellamah NE.

THUR WASHER, \$20; baby carriage, stroller combination, \$15 or best offer. Crawford, DI 4-7890, after 5:30 p.m.

HOLLYWOOD BEDS, two, double, complete w/innerspring mattresses, \$50 each; one eight-drawer chest, \$30. Windsor, DI 4-6557.

NAVY OFFICER uniforms, 2 khaki, 2 blues, size 38, height 5'10". Schinabeck, AX 9-2113 after 5 p.m.

16' CENTURY runabout super delux boat and trailer with 112 hp GM Marine motor, less than 60 hours operation, \$1500. Brockway, CH 3-8366.

FLY ROD, telescoping; net, reel w/line, small assortment of flies, \$12; 2 12v sirens, red flashing light w/flasher unit, \$25. McCormick, Ext. 27258.

LUDWIG DRUM, boy's size, used one year, knee guard and music stand included, \$40. Candelaria, CH 3-2841.

'50 CHEVROLET, 5 pass. coupe, leather upholstery, R&H, new paint job, customizing. Cordova, AX 9-1252 after 5, 9619 Towner NE.

DINING ROOM table, maple, modern, w/5 chairs, oak, modern. Ault, AX 9-3148.

SMALL DOG, male, 8 months old, 8 pounds, good with children, \$15 or trade. Branks, AX 9-3081, 1820 June NE.

'55 HARLEY 125, new paint. Stixrud, CH 3-6870.

3 BRM HOME, Mossman resale, 1 1/2 baths, carpeting, drapes, fireplace, air conditioning, landscaped, 4 1/2% GI loan, \$2000 down. Kolak, AM 8-1017.

5.73 ACRES w/modern 4-room abobe home, electric water pump, near Peralto School, \$1000 down or best offer. Skelley, Rt. 1, Box 354, Los Lunas, Ext. 26134.

3 BRM BRICK, Hoffman, 1 1/2 baths, landscaped, \$1000, below market. Grynkoski, AX 9-4053.

STENOGRAPH MACHINE w/carrying case and tripod. McCammon, AL 5-6125.

AIR CONDITIONER, 3/4 ton, \$75; window type car cooler, \$5. Herman, AX 9-5800.

'56 PLYMOUTH Suburban station wagon, 2 door, straight shift /chrome rack, easy eye windshield, \$1195. Neubauer, AL 6-7068 after 5.

TWO WHEEL trailer, 4x6 bed w/detachable side racks, lights, spare wheel and tire, \$50. LeClair, AL 6-4121.

'56 FORD Tu-tone, 4-door customline, \$1025, will consider trade. Archuleta, CH 3-0750.

TWO WHEEL trailer, 4x7 ft. w/lights, \$40; 16 gauge singleshoot shotgun, \$20; sell or trade both. Scanton, AX 9-4902.

2 WINDOWS, used, from Hoffman home, one bath, one bedroom, \$5 and \$15. Stauffer, AX 9-3224.

HOUSE TRAILER, 18 ft., butane stove, sink, ice box, sleeps four, \$395 or best offer. Conner, CH 2-1289 after 5.

'57 B.S.A. Motorcycle (250cc), \$240. Uhl, AM 8-1855, 501 Charleston NE.

SAFETY SHOES, 1 1/2 C. Style L1633, they pinch my feet, half price. Bray, AL 6-9257.

'56 FORD, Thunderbird engine, Town Sedan, \$1400, will consider trade for older car. Allen, AX 9-1086 after 5:30 p.m.

LIVERMORE FOR SALE

2 1/2 Acres on Tesla road, 5 minutes from Lab, \$1500 down, balance terms. Wells, HI 7-3446 after 5.

WANTED

GOOD MANDOLIN and/or clarinet player for small dixieland combo. Stearns, AX 9-7759 after 6.

HOMES FOR KITTENS, black, and black and white long-haired, snorler 7 weeks old. Brinegar, AX 9-5618 after 5:30.

LARGE DINING TABLE, 6 chairs, walnut-type stain, also china cabinet desirable. Williams, AL 6-6008.

HIGH SCHOOL SENIOR or woman to care for 3 children (2 school age), summer months, my home, NE Heights. Cowham, AM 8-8989 after 5:30 weekdays.

TO RENT furnished houses and apartments, 1, 2, 3 and 4 bedrooms from June to September for Sandia Corporation summer employees. Call 26149.

FOR RENT

2 BRM HOME, furnished, carpeting, TV, dishwasher, disposal, washer, dryer, garage, sprinklers, \$135 mo. Water paid, adults; no pets. Anez, AX 9-6301 after 5.

4 BRM HOME, 1 1/2 baths, near shopping center, schools, churches; garbage, water paid, available June 15, \$135 mo. Duffy, AL 6-4075 evenings.

LOST AND FOUND

LOST—White gloves w/Navvy dots, pearl cluster earring, Shaeffer pen w/name A. W. Fite, prescription, clear rim glasses, house key, turquoise and silver earring, red fineline pencil, rose crystal, tortoise shell Ronson Adonis lighter, yellow gold ring w/pearl. LOST AND FOUND, Ext. 26149.

FOUND—Black needlepoint coin purse w/\$1 bill and \$1.56 change; house key, brass auto key. LOST AND FOUND, Ext. 26149.

FAMILY DAY

LOST AND FOUND

LOST—Child's glasses w/blue and clear pixie frames. LOST AND FOUND, Ext. 26149.

FOUND—Pinocchio, man's tan overcoat left in booth No. 1, lobby of 880; turquoise stone drop earring, mother of pearl fruit earring, gold earring w/pearl in center, pink button earring, black and rhinestone earring, blue and white head scarf, black shoe ornament. LOST AND FOUND, Ext. 26149.

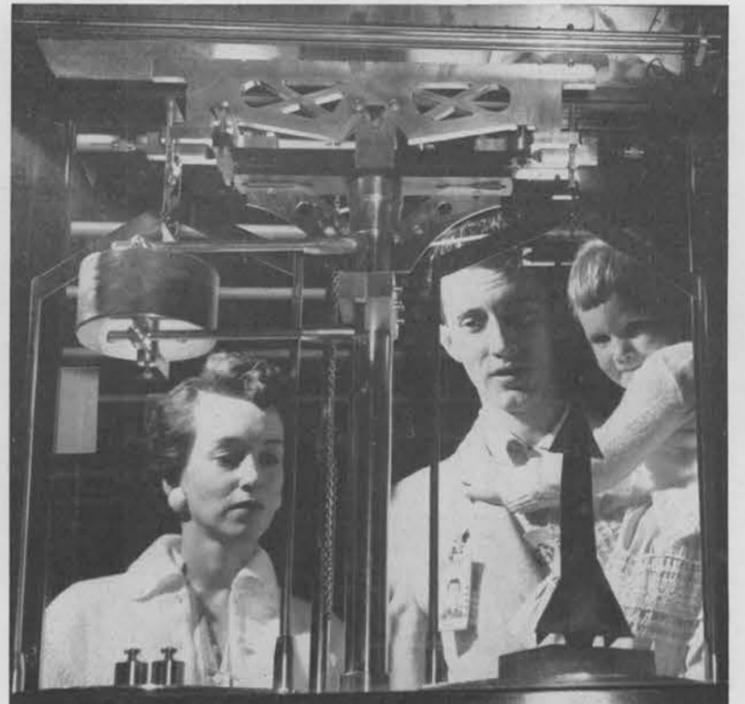
# Visiting Thousands Thrilled at Sights Seen on Sandia Family Day Recently



Some 15,000 attended Family Day . . . Experimental shape of a test vehicle fascinated visitors viewing Bldg. 865 displays . . .



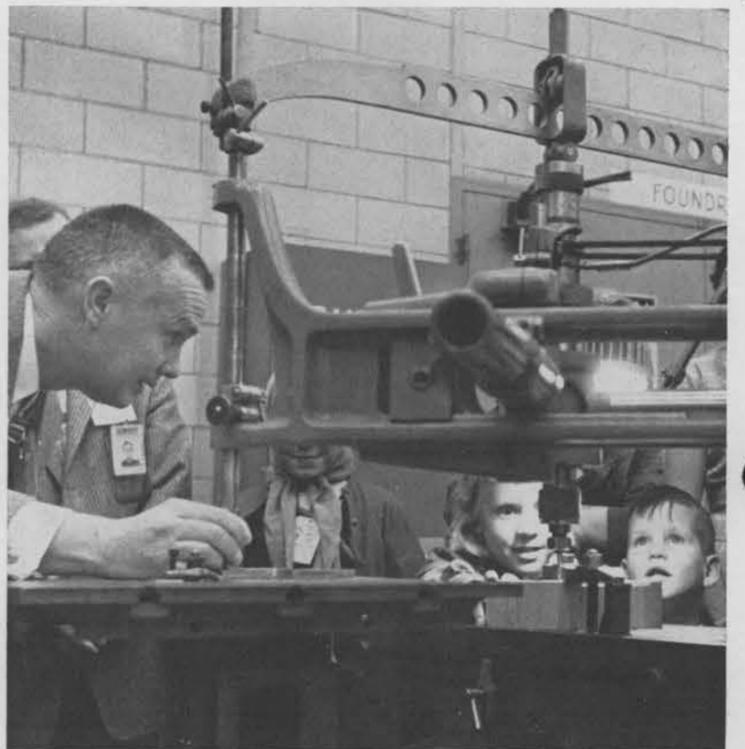
Giant printing machine reflects light of family faces in Photo Lab . . .



Precision scale and small aerodynamic wind tunnel model holds interest of the Bruce Higgins family.



Thousands thronged through Bldg. 840 to see Developmental Shops exhibits



Youngsters, perhaps the scientists of tomorrow, are the ones who reflected wide eyed wonder at the exhibits of Family Day. Here a group pauses to inspect a Pantograph Engraving demonstration.