

# Sandia Corporation LAB NEWS

ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

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SEPTEMBER 2, 1960

## To My Fellow Employees of Sandia Corporation:

It is with a sad heart that I leave Sandia after my short stay of 23 months. I shall always remember with pleasure the time I spent with you, and I hope that the many friendships I made among you will continue throughout my life. As you may know, I expect to maintain a connection with the Corporation, so this is not a good-bye, but only an *auf wiedersehen*. I hope to be back periodically in the future and to follow with interest your further activities.

I have become very proud of my association with Sandia. During the last two years, Sandia has continued to live up to its past reputation for making important contributions to our nation's defense. It has today and will continue to have in the future a great or even greater responsibility to our country. Under the leadership of Mr. Schwartz, I am confident that it will fulfill its vital role in the nuclear weapons field and, in addition, embark on other new and challenging tasks.

During the past several months there have been rumors about impending major cuts in personnel at Sandia. We have denied such rumors, but somehow they have persisted. It is true that we have made changes in organization and in composition of staff, but these have been caused not by an attempt to make a major cut in the size of Sandia. Rather we have been adjusting our force composition to better meet the changing tasks of the Corporation, these being of a generally more technical nature than in the past.

Our technical organizations increased during the past year by 138 people, about 60% of this at Livermore and 40% at Albuquerque. Organizations supporting this technical work increased by 66 people. We have decreased by 247 in three areas — in production assembly, in inspection, and at the storage sites. Thus the number of permanent employees in the Corporation, which was 7881 on July 31, 1959, totaled 7838 on July 31, 1960.

We were able to absorb all but 29 of the surplus employees from the three areas of reduced activity. Ten of them were laid off at the sites and 19 just this past week at Albuquerque, mainly from the inspection organization. The remainder were reassigned, sometimes after retraining, into other organizations. We have no present plans for further lay-offs.

I mention these specific details in an attempt to give you a true perspective of our personnel situation. I hope you will understand that it was necessary to reduce our normal hiring rate of some types of non-technical employees as we worked out the reassignment of surplus employees. In the clerical area we are, in fact, once again recruiting new employees.

As you know, we have placed special emphasis on hiring Staff Assistants with Technical Institute training and Staff Members with graduate training. For Staff Members-Technical with bachelor's degrees we instituted the Technical Development Program. Quite naturally some of you have wondered how this emphasis on more training in our new recruits would affect your own careers at Sandia, especially if you had not had such opportunities for schooling in your youth. I would like to answer that question this way. To begin with, I need hardly tell you that formal training in itself does not make the man. It can help, and it can often serve as a weeding-out process. But it is not an automatic route to competence. There are other roads to competence — experience on the job, self-education, and innate ability. More over, I should point out that most of our new recruits are very young men. I believe, therefore, that the opportunities for growth and advancement of older employees will be as good in the future as in the past. If recruiting the best possible young engineering and scientific talent will strengthen Sandia Corporation, that can only serve to benefit all employees of the Corporation.

Let me also make clear that Sandia Corporation needs employees of many talents and skills. It needs support organizations such as purchasing, model shops, drafting, personnel, and many others. Research, development, and engineering for manufacture may be our reasons for existence, but that work cannot go on without the support of these other groups. They are essential parts of the whole.

During my time at Sandia it has been my pleasure to observe the growing and maturing of the Livermore Laboratory. Its accomplishments this past year have been most gratifying. I regret that I had less opportunity to get personally acquainted with our Livermore people. I would like, however, in leaving to make a special point of expressing my fond farewell to them.

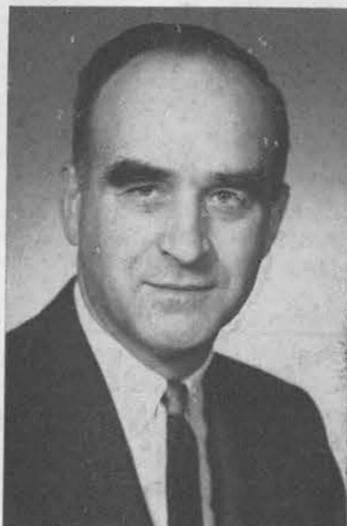
Besides those who work in Livermore and Albuquerque, Sandia has some 234 people working in outlying locations, in field inspection offices, at sites, and at the test ranges. Many at the sites have suffered dislocations this past year. Others at the Salton Sea Test Base will be moving to Tonopah soon. I hope these moves were not or will not be too upsetting. My best also to these people.

Let me close by expressing once more my full confidence in the Sandia organization. It has established itself among the major AEC laboratories. The future of Sandia Corporation, as I see it, is sound and full of promise of even greater things ahead.

Best wishes and good luck to you all.

Cordially,

J. P. Molnar



J. P. Molnar

## See You Tuesday

This Labor Day weekend lure of the highway is great. Cool waters of oceans, lakes, and streams beckon, and the call to action for the do-it-yourself fan is almost irresistible.

Wherever you go, whatever you do this weekend, have care. There are no simpler words than: Be Safe.

And we'll see you Tuesday.

## Sandia Corp. Will Co-Sponsor National Security Seminar

Sandia Corporation will co-sponsor a National Security Seminar—one of the most unusual educational opportunities available to civilian leaders and reserve officers of the Armed Forces.

R. B. Powell, Vice President, Personnel, met recently with representatives of the Industrial College of the Armed Forces, Washington, D. C., which conducts the Seminar, to discuss Sandia's part in this national event to be held Oct. 31-Nov. 11 on Sandia Base. Co-sponsors will be the Albuquerque Military Advisory Committee and the Greater Albuquerque Chamber of Commerce.

Physical arrangements for the seminar are being handled by Sandia Base Headquarters in cooperation with Field Command Headquarters, DASA.

Col. J. M. Christensen, Jr., advance officer from the College, explained that Albuquerque is one of 14 cities to host a National Security Seminar this year.

He noted that the instruction courses are conducted by military faculty teams from the Industrial College, but the Seminars are organized and operated by local committees and have proved to be an outstanding example of close military-civilian cooperation.

About 200 senior reserve officers from the armed services will be ordered to active duty for two weeks to attend the classes.

## Sixty Out-of-Hours Courses Offered at Sandia Laboratory

Enrollments are now open in the 60 courses offered by Sandia's Out-of-Hours Educational Program. The program is administered by Technical and Trades Training Division 3132 for employees at Sandia Laboratory.

This is the largest selection of courses ever offered by the program, according to Mel McCutchan (3132-1), and a record enrollment is expected.

A complete schedule of classes in the program is available in a booklet now in Laboratory booklet racks.

Classes will be starting the week of Sept. 19. Enrollment cards should be turned in to 3132 by Sept. 12.

Among the new courses that will be taught for the first time are four university level Staff Technical Courses. These are Electrical Data Processing Machines, Survey of Plastics—Part 1, Design of Springs for Draftsmen, and Thermodynamics. This brings the total to 24 university level courses offered in this area

of the educational program.

A new series of courses at the technical institute level is described elsewhere in this issue of the Lab News.

Fifteen courses are offered in the trades area, four clerical courses are offered, and three in the general course area.

All Out-of-Hours courses are offered free to employees. No charge for textbooks is made for employees who successfully complete the course.

Some 2200 employees enrolled in the Out-of-Hours Educational Program last year. The program is designed to provide job-related courses for Corporation employees. Through cooperation with Albuquerque educational institutions, the Sandia program augments community offerings with courses not available elsewhere and are specifically designed for the special interests of Sandia employees.

Counseling for Out-of-Hours courses is available from 3132, ext. 47255.

## Nine Articles by Sandians Published in Tech Journals

Nine articles by Sandia Corporation authors have appeared in national technical publications since Jan. 1, 1960, according to a report by Technical Information Department 3420.

The articles and publications are as follows:

"A Brief Description of Structural Adhesives for Metal," 1959 *Welding Handbook*, June 1960, N. J. DeLollis (1125);

"Hot Bolts Best for Impact Location," *Missiles and Rockets*, April 11, 1960, B. E. Dieruf (3431);

"Invariant Imbedding and Neutron Transport in a Rod of Changing Length," *Proceedings of the National Academy of Science*, January 1960, G. M. Wing (Sandia consultant);

"A Novel Pulse Integrating Circuit," *Electronic Industries*, April 13, 1960, W. F. Nielsen (1424);

"On the Applicability of Paschen's Law to Discharge in H<sub>2</sub> and D<sub>2</sub> below the Critical Pressure," *Journal of Electronics and Control*, June 1960, G. W. McClure (5152);

"Orientation and Scope of the Nondestructive Testing Field," *Journal of the Society for Nondestructive Testing*, May-June 1960, D. W. Ballard (2541);

"Programming Fisher's Exact Method of Comparing Two Percentages," *Technometrics*, February 1960, W. H. Robertson (1442);

"Square-Wave Generator for the Study of Exploding Wires," *Review of Scientific Instruments*, February 1960, T. J. Tucker (5131);

"Tube Saver Squelch Circuit," *Radio Electronics*, June 1960, R. L. Shaum (7222).



ADVANCE PLANS for National Security Seminar to be held on Sandia Base Oct. 31-Nov. 11 were discussed by (l to r) R. B. Powell, Vice President, Personnel, Col. Philip R. Willmarth, Seminar Administrator, and Col. J. M. Christensen, Jr., Advance Officer from the Industrial College of the Armed Forces, Washington, D. C. The event will be co-sponsored by Sandia, Albuquerque Chamber of Commerce, and the Albuquerque Military Advisory Committee.

Civilian participants will be selected locally in an effort to obtain a cross section of Albuquerque's business, professional and civic leaders.

The Seminar will consist of 31 one-hour illustrated lectures, discussion groups, open forums, film presentations, and a field trip. Emphasis will be given to an examination of the economic po-

tential for war of the various countries and world areas. Also included will be a detailed analysis of the United States' organization for national security and the manner in which the various military and civilian responsibilities are interrelated.

Col. Philip R. Willmarth, Albuquerque, is Seminar Administrator.

Editorial

Let's Use, Not Abuse Health Insurance

(First of a Series)

Your family car is an investment. Naturally you want to protect any investment you make. So, you play it smart. You don't burn up the motor, hot-rodding it around town. You take good care of that car. You know that if you do push the engine beyond its limits, you'll soon end up with a worn out vehicle you can't drive or sell.

Your health insurance is an "investment," too. Yet a lot of folks don't think of it in that way. Forgetting the real purpose of health insurance, they put it to uses for which it was not intended. Like the family car driven too hard and too fast, the maintenance costs on insurance then climb and the over-all value of coverage diminishes.

The secret of getting the most value for each health insurance dollar you invest calls for using not abusing your policy. To do this you need to know what insurance is, what it can and cannot do, and how to use it properly.



Jane Holman (1331)

Take a Memo, Please

NO SAFETY DEVICE has yet been invented that can take the place of good judgement.

Maine-Ex's Picnic

The second annual picnic for ex-natives of Maine and their families will be held Sunday, Sept. 11, in the Manzanos. At last year's picnic, 35 persons attended and more are expected this year. For further information call J. W. O'Brien (4412-4), AX 9-4196.

Weddings and Engagements

Evangeline Boley (3126-5) was married Aug. 7 in Albuquerque to Fred McCoy. After a honeymoon to the Grand Canyon the couple is now at home at 416 Rhode Island SE.

The bride has been employed by Sandia Corporation since last December.

Doris Briggs (8212-5) will exchange wedding vows with Fred



Doris Briggs

Barrett of Newark, Calif., on Oct. 8 at Saint Michael's Church in Livermore.

Doris has been with the Livermore Laboratory since March 1959.

Sympathy

To Helen Hake (4151) for the death of her mother Aug. 6 in Woodward, Okla.

To Dick Lassen (8232-2) for the death of his mother Aug. 23 in Livermore.

To Gilberto Sandoval (4252-5) for the death of his father Aug. 23 in Miami, Ariz.

To W. B. Benedick (5133) for the death of his brother Aug. 13 in Joliet, Ill.



LIGHT MOMENT shown above occurred during the annual luncheon for Sandia summer hires at the Coronado Club. Purpose of luncheon is to acquaint employees with Corporation officers and directors.

Chiming, Ringing, Striking . . .

Clock-Collecting Bug Hits Charlie Muehlenweg Hard

Family skeletons can be found in some closets, but in Charles Muehlenweg's (5134-1) home you'll probably find one or two clocks stashed away.

Charlie became interested in clocks about two and a half years ago when he bought a mantle clock which needed overhauling and reworking. The clock-collecting bug hit him hard and since that time he has acquired about 110 timepieces in various stages of disrepair.

When he was back east on his vacation this summer, he picked up 30 clocks from a fellow member of the National Association of Watch and Clock Collectors. On the day before he left, he heard about 50 more clocks which a jewelry store wanted to sell. Sight unseen, he asked his brother-in-law and mother-in-law to buy them for him, and they're being shipped to him now.

Most of Charlie's clocks are relegated to the family room. Here, seated at an old roll top desk, he proceeds to make them work again.

One of his favorites is a calendar clock in a beautiful rosewood case which hangs over the desk. Another recently acquired one, a decorated china clock, is fast becoming a favorite. "I've even considered putting this one in the living room," Charlie says.

Charlie has a habit of setting

his clocks a few minutes fast. "We miss the punch lines on a lot of TV shows because the clocks start chiming, ringing, and striking, and drown out the TV," he said.

His oldest clock is a wooden works one which dates back to about 1820. Right now, it's just wooden works until he can repair it and put a face on it. He also has a kitchen clock, popular about the 1890's, which gives time, temperature and weather.

Not all of his clocks are being repaired. He has a Westminster clock which plays a tinkling tune on the quarter hour, a ship's bell clock, and of course, many striking pendulum clocks.

He hopes it won't be too long before he adds a grandfather's clock to his collection of shelf and wall clocks.

"It's usually hard to find old clocks in this area of the country unless they're in antique shops and those are too expensive," Charlie remarked. "I do a lot of scrounging around to find them. My trip back east was a windfall."

As soon as he gets a house with a basement, he's thinking of collecting music boxes and player pianos.

Moving Days

"Moving" has been the by-word among Field Inspection Division personnel the past couple weeks.

T. H. Moyer and family of St. Louis, Mo., have transferred to Albuquerque where Mr. Moyer will be supervisor of Service Section 2713-4.

J. G. Wimpling and family have moved to St. Louis, Mo., where Mr. Wimpling will head St. Louis Area Section 2713-5.

D. G. Lewis (formerly of 2713-4) and family have transferred to Minneapolis, Minn., where Mr. Lewis will be attached to the Chicago Area Section 2713-2.

Another transferee is W. W. Bach (2713-4), who will soon leave for Pennsylvania to work in the New York Area Section 2173-1.

Congratulations

Born to: Mr. and Mrs. H. E. Gatlin (7254) a son, Herbert Eldred, III, on Aug. 18.

Mr. and Mrs. David L. Kohlman (7132) a son, Bradley David, on Aug. 12.

Mr. and Mrs. B. L. Pierce (7243-2) a son, Clayton Leo, on Aug. 10.

Mr. and Mrs. R. C. Colgan (3431-3) a son, Robert Luke, on Aug. 22.

Mr. and Mrs. Charles Herndon (2332) a son, Donald Peter, on Aug. 18.

Mr. and Mrs. L. W. Newman (2313) a son, John Martin, on July 16.

Mr. and Mrs. A. Hachigian (2313) a son, Michael Shannon, on Aug. 16.

Mr. and Mrs. Joe Vanderpoorten (8121-3) a daughter, Joyce Aileen, on Aug. 12.

Mr. and Mrs. Francis Cunningham (8232-3) a son, Christopher Edward, on July 31.

Mr. and Mrs. Ron League (8234-3) a daughter, Christie Dianne, on Aug. 3.

Mr. and Mrs. Paul T. Shoene-mann (8123-1) a daughter, Elizabeth Denny, on Aug. 12.

Mr. and Mrs. Peter Peshlekai (4212) a son, Marco Tom Anthony, on Aug. 18.

Mr. and Mrs. David M. Webb (7183-3) a son, Bryan David, on Aug. 23.

Mr. and Mrs. Ronald Hatcher (4221-3) a son, Mark Lee, on Aug. 24.

Safety Council Winner

After entering the National Safety Council's "Safety Calendar" contests for more than two years, Mrs. W. R. Mitcham (whose husband works in 4542) won the top prize of \$100 by writing the last line of a jingle. She had previously won four or five \$5 prizes in this calendar contest.

Accompanying her entry in one of the contests last year was a letter in which she stated she would continue to submit "last line" jingles until she won the big prize. Now that she has accomplished this, she says she's going to continue entering anyway.



TIME ON HIS HANDS! Charlie Muehlenweg (5134-1) holds his oldest clock which has wooden works. The one in the lower right hand corner is a ship's bell clock, and the large round calendar clock hanging on the wall is his favorite. He has accumulated about 110 shelf and wall clocks.

Sandia Corporation  
**LAB NEWS**  
 ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

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### Douglas W. Ballard Named Chairman Of New SNT Group

An Albuquerque Section of the Society for Nondestructive Testing was formed this month with three Sandians holding officer positions.

D. W. Ballard (2564) heads the new group as chairman with D. R. Johnson (1621) and C. M. Littleton (5511) as directors.

For several years a small number of local members of SNT have been affiliated with the Los Alamos Section which is sponsoring the new Albuquerque group.

The national society consists of about 3000 engineers and technicians interested in the use of advance nondestructive methods such as ultrasonics, electromagnetics, radiography, leak detection, etc.

Information regarding membership may be obtained by contacting the three officers named. Anyone joining the organization prior to Sept. 15 will be considered a charter member.

### C. J. McGarr Presents Paper at Workshop Held at Los Alamos Lab

A technical paper on "The Work Ratio System" will be presented by C. J. McGarr, Director of Service Operations, during the Materials Management Workshop to be held Sept. 13 and 14 at Los Alamos.

The paper discusses how first-line supervisors can apply the work ratio system to determine performance standards rather than through a time study, motion-time methods or work sampling.

The workshop will also be attended by O. L. Wright, manager of General Services Department 4610, Robert Findlay, manager of Receiving and Reclamation Department 4620, and some of the organization's division supervisors.

### Two-day Race

A two-day outboard motorboat race held recently found Don Knudsen (8121-3) and his teammate John Ferris of Oakland with a fifth place trophy in Class A at the finish of the 319-mile course. The race was held along the Sacramento River and other waterways connecting the cities of Stockton and Colusa, Calif.



NEW OFFICERS for the recently organized Albuquerque Section of the Society for Nondestructive Testing are shown above making plans for recruiting charter members. From left are D. R. Johnson (1621), director; D. W. Ballard (2564), chairman; and C. M. Littleton (5511), director. Charter members may join up to Sept. 15.

### Tech Institute Level Courses to Be Offered for Sandia Laboratory SA's

A new series of Out-of-Hours courses at the technical institute level will be offered to Sandia Laboratory employees for the first time beginning this month.

In announcing the technical institute level courses, Technical and Trades Training Division 3132 outlined the content as being especially designed for Staff Assistants who are not graduates of technical institutes. The courses will consist of job-related material in applied technology stressing practical understanding and application.

### Sandia Directors To Meet Sept. 14-15

Sandia Corporation's Board of Directors will meet Sept. 14 and 15 at Sandia Laboratory for their annual meeting and technical briefings.

Sandia members of the Board are S. P. Schwartz, President, and R. W. Henderson, Vice President, Weapon Programs. J. P. Molnar, who assumed duties as Vice President, Bell Telephone Laboratories, on Sept. 1, will continue to serve on the Board.

Other visiting members of the Board are: from the Bell Telephone Laboratories—J. B. Fisk, President, and R. L. Helmreich, Vice President and General Manager; from the Western Electric Company—H. I. Romnes, President; W. L. Brown, Vice President and General Counsel; P. R. Brousse, Vice President, Manufacturing Division; C. R. Smith, Vice President, Radio Division, and J. J. Merry, Secretary.

Enrollment is now open in eight classes: Applied Graphics, D. C. Fundamentals, Dimensioning and Tolerances, Electrical Drawing, English Composition, Physics I, Applied Algebra and Manufacturing Processes I.

The courses will be taught by qualified Corporation employees. Although these are non-credit courses, standards will be equivalent to technical institutes. Records will be maintained by 3132 and successful completion of courses will be entered in the employee's personnel file.

Courses to be added in coming semesters will provide complete programs of study in electronics and in mechanical drafting and design.

Complete details, as well as enrollment cards, are available in the Out-of-Hours courses booklet now in the booklet racks.

Enrollment cards for technical institute courses should be in by Sept. 12.

Counseling or answers to questions concerning the technical institute program are available from 3132, ext. 47255.

### Two First Aid Classes Available to Sandia Employees and Their Families

Two classes in first aid will be offered by the Out-of-Hours Educational Program this fall. Both courses will be taught by Jim Brown (5513) and will utilize first aid textbooks by the American Red Cross.

Employees and their families are invited to enroll in these courses. The classes will be held outside the Tech Area in Bldg. 300

and will meet in the evenings. Wives of employees and children 16 years of age or older are eligible to attend.

No fees will be charged and textbooks will be provided by the Corporation.

The first class, Standard First Aid, will meet Mondays from 4:45 to 6:45 p.m.

The second class, Comprehensive First Aid, combines standard and advanced courses. Topics included are treatment of shock, control of bleeding, care of wounds, poisoning, fractures, injuries due to extreme heat and cold, and rescue breathing. The class will meet in Bldg. 300 on Mondays from 7 p.m. until 9 p.m.

Enrollment in the classes is the same as for all Out-of-Hours courses. Fill out the enrollment card included in the Out-of-Hours Booklet now in the Laboratory racks and return to Technical and Trades Training Division 3132.

For further information call ext. 47255.

### Tennis Tourney Starts Next Week

Twenty-five contestants, including four women, have entered the Sandia Laboratory tennis tournament which will get underway next week. Rounds will be played each week through Oct. 1. Finals will be played week of Oct. 2-8.

Competing on an equal basis with the male entrants are Jean Langston (1240), Gloria Toland (2714), Lucille Stewart (3120) and Mabel Coburn (5321).

### 64 Sandia Corporation Tech Papers Available to Public

During the last three months 64 technical papers by Sandia Corporation authors and organizations have been submitted to the AEC's Technical Information Service Extension at Oak Ridge for the Civilian Application Program.

This brings the total to 150 since Jan. 1, 1960, according to a report by Technical Information Department 3420.

The papers are given standard distribution making them available to the public through the Office of Technical Services, Department of Commerce, Washington 25, D.C.

Among those not previously reported by the Lab News are the following:

"Nuclear Explosives and Landslide Dams," R. H. Carlson (7212); "Progress Report, Foundry Metallurgy Studies," L. P. Wilson (7321); "Some Proposed Research Activities Pertaining to Reliability and Some Notes on the Estimation of Reliability," R. O. Frantik (1443) and R. L. Calvert (5422);

"How Positional Tolerancing

Clarifies Design Intent and Reduces Product Cost," E. S. Roth (2562); "Logarithms of Factorials from 1 to 2000 (A Sandia Corporation Monograph)," D. B. Owen (5425) and C. M. Williams (5426);

"A Theoretical Examination of a Variable Reluctance Diaphragm Gage Developed at Sandia Corporation," G. E. Reis (7224); "Evaluation of Plated-through Connections for Printed Circuit Boards," G. Volda and N. J. Eich (both 1127);

"Radio-Frequency Attenuation Measurements in High-Altitude Nuclear Detonations," F. L. Dossey (7162); "Transparent, Cold-Shock Resistant Epoxy Casting Resin," B. Carroll (1125) and J. Smatana; "Kryton Tubes: Applications and Performance Requirements," A. F. Hurford (1431);

"Multiple-Source Schlieren System (Transonic Wind Tunnel)," H. R. Spahr (7132) and R. E. Kyrilach (7224); "The Relationship of the Binomial Probability Distribution to Other Probability Distributions with a Selected Bibliography on the Subject," D. B. Owen (5425) and E. J. Gilbert (5425);

"Fall of Small Particles in the Free Atmosphere," J. R. Banister (5150); "Zeus Firing System," J. A. Johnson (2643); "Theory of an Electrostatic Energy Supply: Analysis of Nondestructive Methods for the Measurement of Internal Charges," H. G. Baerwald (5132);

"Automatic Recording Unit," F. A. Ross (2451); "A Capacitor Monitor for High-Energy Capacitive Storage Banks" and "Ignitron Resistance during High-Current Operation," J. L. Todd (1313);

"Atmosphere Moisture Data for Thermal Attenuation Problems" and "A System of Standard Atmospheres," B. N. Charles (5111).

Department 5420 authored the following: "A Method for Computing Expected Damage from a Single Bomb," "Note on the Numerical Evaluation of Integrals with Particular Reference to the Determination of the Expectation of a Function of a Normally Distributed Random Variable," and "A Method for Obtaining Recommended Burst Point Against a Flight of Enemy Planes."

Division 3453 authored "Paper Tape Format Protocols" with Existing IBM 705 Routines"; Division 3423, "Civilian Application Releases through 1959 (A Sandia Corporation Bibliography)" and "Bibliography and Symposium Papers Received from the Heat Engineering Research Institute in Prague";

Division 1126, "Radiation Effects (A Sandia Corporation Bibliography)."

## Sandia Lab Photographers Take High Honors at PPA Convention

Sandia Laboratory photographers copped a large share of the honors at the Professional Photographers of America annual convention in Chicago recently.

Highlight of the convention is the selection of photographs for display. One thousand are chosen from the several thousand entered by photographers throughout the country. Selection of a print means a merit for the photographer. Twenty-five merits and the PPA awards the degree of Master Photographer to the man.

Bill Laskar, Dick Hodges, Oscar Goodwin and Tony Adler of Still Photography Section 3462-1 had one or more color prints selected for the national exhibit. In addition, photographs by Laskar, Hodges and Goodwin were selected to be part of 20 prints to represent American industrial photography at an international exhibit in London.

The three prints by Bill that were selected for exhibition were all part of an assignment for the Public Relations Division 3431 to provide a cover for Sandia's recruiting brochure. Bill is photographer for the LAB NEWS. Two of these prints will be shown in London. This brings Bill's total number of merits to seven.

Dick Hodges also had three prints exhibited bringing his total number of merits to 13. In addition to a local landscape, pictures of Sandia's Clean Room and Van de Graaff accelerator were selected. The Van de Graaff



Dick Hodges—Bill Laskar—Tony Adler—Oscar Goodwin  
—Sandia photographers win national and international recognition—

picture will be displayed in London. Dick attended the national convention as councilman for the New Mexico Industrial Photography Association.

Oscar Goodwin's photo of mixing chemicals for plastic moulding at Sandia was selected for display which brings his total merits to four. This picture, too, will be part of the

London exhibit.

Tony Adler's still life photograph of a basket of apples was honored at the national exhibit. This was the first print Tony had entered in the judging and he was awarded one merit.

All of the photographers are members of the Professional Photographers of America.

## AEC Bestows Highest Honors on ALO Manager Kenner F. Hertford

General Manager A. A. Luedicke has presented the Atomic Energy Commission's Distinguished Service Award to Kenner F. Hertford, Manager of the Commission's Albuquerque Operations.

The award is the highest recognition that the Commission can bestow on its employees. It consists of a gold medal, a certificate signed by the General Manager, and a citation. The award was made during a ceremony recently at the Commission's headquarters at Germantown, Maryland.

The citation read in part: "In recognition of the outstanding achievement and exceptional contribution of Kenner F. Hertford to the atomic energy program of the United States Atomic Energy Commission.

"As Manager of Albuquerque

Operations of the Commission since 1955, Mr. Hertford has directed a varied and widespread organization which carries on most phases of the Commission's nuclear weapons program. In addition, he has been responsible for general area responsibilities of the Commission in the five-state region of Southwestern United States.

"His personal leadership and understanding have built an outstanding AEC contractor trust and the highest morale within his own staff and subordinate offices.

"Mr. Hertford's record of achievement, program accomplishment, and personal contribution to the atomic energy program are deserving of the highest recognition. He has served his country and the Atomic Energy Commission in the finest tradition of a public official."



**SIGNING THE AGREEMENT** between the Albuquerque Guards Union and Sandia Corporation last week were the above persons. L to R: C. J. Baumgartner, Manager, Security Operations Department;

E. C. Peterson, Manager, Labor Relations Department; J. C. Ivey, President, Albuquerque Guards Union; H. Flores, Business Manager, Albuquerque Guards Union, and D. S. Tarbox, Director of 3200.

### Housing turned over to Military

## Years Bring Changes in Homes at Sandia



**THIS IS WHAT** the Base housing area looked like in January 1949 when many Sandia Corporation families moved into the rental units, due to lack

of available housing in Albuquerque. "Bobby" Hopper, son of R. E. Hopper (4500), is shown before 3119 42nd Place when the family settled there.



**SOME 11 YEARS LATER** the grass, flowers, shrubs and trees had grown—and so had Bobby Hopper. Now a six footer, Bobby was 14 years old last

month. With increased housing in Albuquerque, ownership and operation of the rental units have been turned over to Defense Atomic Support Agency.

## A. Y. Pope Will Speak to NATO Group in Turkey

A. Y. Pope, manager of Engineering Department 7130, will present a technical paper before the 10th General Assembly of the Advisory Group for Aeronautical Research and Development, North Atlantic Treaty Organization, meeting in Istanbul, Turkey, Oct. 6-7.

Entitled "Wind Tunnel Calibration Techniques," the paper will discuss air-flow measuring instruments, their use, and manner of working up and presenting data obtained when calibrating subsonic, nearsonic, transonic, supersonic, and hypersonic wind tunnels.

The assembly, to be held at the University of Istanbul, will feature talks by representatives from France, Germany, Turkey, and the United Kingdom, as well as the United States. Dr. W. R. Lovelace of Albuquerque will head the Aero-Space Medical panel.

The first day of the assembly will be attended by the Science Advisor to the NATO Secretary General, the Governor of the city of Istanbul, Air Deputy of Supreme Headquarters Allied Powers in Europe, the Chairman of the NATO Standing Group and the Minister of Defense of the Republic of Turkey.

## Sandia Corporation, Guards Union Sign Agreement Last Week

Representatives of Albuquerque Guards Union, Local 27, International Guards Union of America, and Sandia Corporation last week signed a supplementary Agreement covering wages and Corporation contribution to the Health Care premium.

The Agreement provided for an increase in the start, job and base rates of all Guards in the amount of \$3.20 per week effective Oct. 1, 1960. The Agreement also increased the Corporation's contribution toward the payment of the Health Care premium to \$2.80 per month. This increase became effective with the August 1960 premium.

The Agreement covers a period of 12 months.

## A. W. Snyder Speaks To Rotary Club on Use of Reactors

A discussion on reactors was presented by A. W. Snyder, supervisor of Radiation Effects Studies and Testing Division 1632, at a meeting of the Albuquerque Rotary Club last week.

Points Mr. Snyder covered in his talk included what a reactor is, the milestones in the evolution of the first reactor, reactors of today and their uses, and future reactors and potential uses.

## 'Sky Shield' Exercise Giving Sandia Traffic Office King-Sized Problems

The forthcoming North American Air Defense Command exercise, "Sky Shield," is giving Sandia's travel reservation clerks their share of trouble.

All American and Canadian commercial and private planes will be grounded from 11 p.m. (Mountain Standard Time) Friday, Sept. 9, until 5 a.m. Sept. 10. During these hours Strategic Air Command B-47's and B-52's will serve as "attack" plane targets for fighter planes, ground-to-air missiles and radar systems.

Since there is a chance that planes scheduled to arrive as early as 9 p.m. on Friday might be stranded at an unscheduled

stop, the airlines are cancelling flights that conceivably could not be completed before the deadline. (One line serving Albuquerque has already cancelled 41 flights on Sept. 9.)

As a result, Sandia employees on temporary assignment out-of-town may have difficulty getting back to Albuquerque that weekend. Reservations for operating flights on the day before and the day after the defense exercise are already fairly well filled.

Employees traveling on Corporation business on Sept. 9 or 10 are urged to contact Travel Reservations Section 4335-1 as early as possible.

## MP's Renew Warning Of Traffic Violators

Office of the Sandia Base Provost Marshal has reminded motorists driving on the Base of the strict enforcement of traffic regulations.

Military Police have a special warning for speeders and call attention to the fact that radar is used by the MP's to control traffic speed at least five days of each week.

Civilian traffic violators are cited and prosecuted in the U.S. Commissioner's Court. Repeated speeding violations are sufficient cause to revoke the offender's on-Base driving privilege.

## A. R. Eiffert to Speak to Enforcement Group in Oakland

Livermore Laboratory Security Division will host the September meeting of the Bay Area Law Enforcement and Liaison Group.

A. R. Eiffert, manager of Information, Security and Program Control Department 8230, will present "The Sandia Story" and explain Sandia's part in the engineering development of atomic weapons.

The meeting will be held at the Oakland Army Terminal Officer's Club.

# What Are They Looking At?

(Answers to this photo quiz printed on page six.)



1.

KNOWN as the Bldg. 887 Recreation Club, this group is obviously enjoying the scenery at the Coronado Club pool during a noon hour swim. From left are Ward Hun-

nicutt (4542), Hal Baxter, Elwin Schaefer, Jim Reid, Chuck Mills, Charlie Champe (Plant Engineering Design Division 4543).



2.

OUTDOORS on a sunny day something has caught the eye of this group of Sandians. What do you think it is? From left are Joyce Hughes (2444), Mary Heckler (2441), Alton Simpson (4514), Mike Ryanczak (4511) and George Davis (3242).



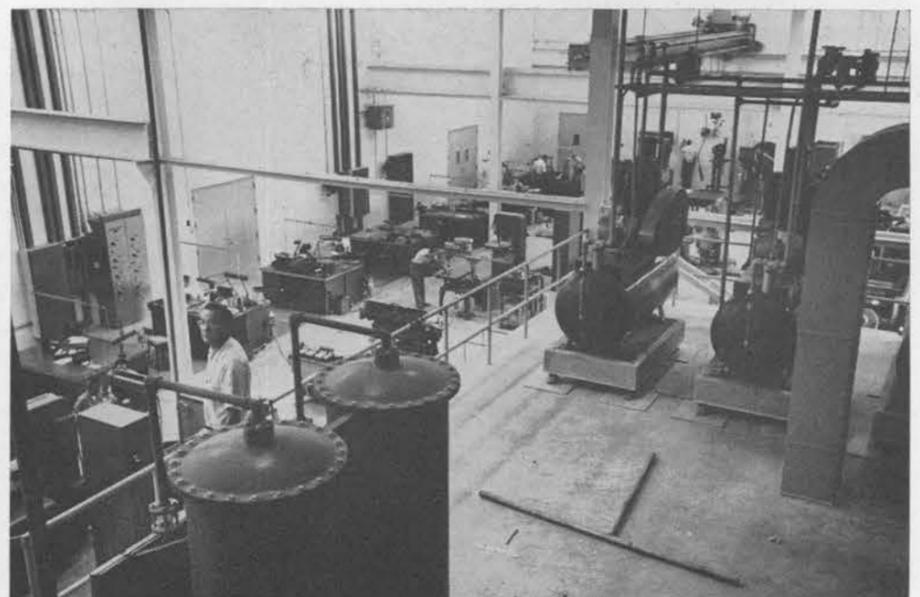
3.

INTENTLY studying a specimen in the Materials Support Division 8115 metallography laboratory in Livermore is Joe Darginis. What he sees is shown on page six.



BEFORE AND AFTER—Photo at left shows Jim Reid (5543), project engineer for the move into Sandia's new Machine Shop Bldg. 841, as he overlooks one of the large areas in the new building. Photo on right shows the same

area after occupation by Model Development—Sheet Metal Shop 4224-3. In the foreground is the mezzanine above the main floor of the shop. In this photo, Jim is almost obscured by large de-ionizer tanks. The move into



the new building was accomplished without a shutdown of the sheet metal shop. The group moved in sections with machines going into operation as soon as they were installed in their new location.

## Livermore Community Thanks Sandia For 'Outstanding Efforts' in Drive

Sandia Corporation has received a letter of appreciation from the general chairman of the supplementary building fund campaign for the Valley Memorial Hospital, Livermore, for contributions in the recent drive.

Livermore Laboratory employees pledged \$51,819 in the initial drive and \$23,261 in the supplemental campaign.

The Corporation donated \$10,000 in the first hospital campaign and \$3,000 in the supplemental drive this summer.

The letter addressed to R. E. Poole, Vice President, Livermore Laboratory, said in part: "It should be a source of great satisfaction to your organization to know that the support of your company, your employees' contributions and the outstanding efforts of several of your personnel in this last campaign combined to place Sandia on top of the list in community leadership.

"If the same interest were shown by each plant or agency and the community at large, we

should have no difficulty in providing adequate hospital facilities for our increasing needs."

Even though the amount raised during the supplemental drive was less than anticipated, construction of a two-story 46-bed hospital is assured, according to R. E. Merritt, general chairman.

## Positions Still Open on Flag Football Teams

Six teams have organized into Sandia Laboratory Employees Flag Football Association. President of the organization is John Foster (5322), Bob Gevirtzman (4113) is vice president, and George Banos (3122) is secretary.

With the first games played last Saturday, the schedule calls for three games each Saturday morning through Nov. 5. Games begin at 8:15, 9:30 and 10:45 at the Sandia Base baseball field.

Positions are still open on some teams. Employees desiring to participate should contact their organizational representative to the Sandia Laboratory Recreation Council.

Members and the organizations they represent are V. C. McIntyre (AEC), R. O. Hedges (1100), Leo White (1300), A. L. McMullen (1400), J. M. Foster (2300), J. E. Danclovic (2400), A. C. Finlayson (2500).

V. C. Garratt (2600), Jerry Olguin (2700), R. R. Zottnick (3100), E. C. Moser (3200), C. L. Hines (3300), N. V. Tarnawsky (3400), R. J. Gevirtzman (4100), S. A. Urevitch (4200), C. B. Batsel (4300), C. R. Pogue (4400).

M. A. Kuliasha (4500), Samuel DeHann (4600), T. E. Latta (5100), J. E. Tichenor (6000), V. J. Roh (7100), J. L. Landrum (7200), J. J. Bradshaw (7300) and R. E. Andres (7500).

## Welcome Newcomers

Aug. 15-26

<b>Albuquerque</b>	
*Dianne J. Cleveland	3126
*Gladys M. Collins	3126
*Alice C. Divine	3300
Jane E. Morgan	3126
*Wallace E. Newman	1314
Doris R. Spohr	3126
Geraldine Walker	3126
<b>Indiana</b>	
Marvin L. Reichenbach, Kokomo	2451
<b>Ohio</b>	
Richard L. Coughenour, Columbus	4171
* Denotes Rehired	
<b>Returned from Leave</b>	
Fred P. Cerruti, Livermore, Calif.	8121-1
Cynthia B. Davis, Albuquerque	3126
R. N. Rose, Albuquerque	3121
<b>New Hires at Livermore Laboratory</b>	
August G. Alexander, Livermore	8223-4
Jack V. Almstad, Irvington	8123-2
Ora A. Baker, Oakland	8223-5
Carol J. Bennett, Tracy	8232-1
Carolyn S. Crocker, San Lorenzo	8212-3
George E. Deyo, Ft. Campbell, Ky.	8121-3
Frank D. Fallon, Livermore	8223-3
Rollie L. Gilliam, Taft	8123-2
Patricia R. Leavitt, Hayward	8212-5
John D. Lyon, Hayward	8212-5
Armen E. Meyers, Cupertino	8161-2
John J. Mulligan, Morning View, Ky.	8223-3
Philip D. Olear, Bethlehem, Pa.	8116-1
Arthur Lance Pearson, Livermore	8232-3
*Henry E. Schoeppe, Jr., Livermore	8152-1
Billy R. Williams, Costa Mesa	8114-2
* Denotes rehired	

## Junior Bowling League Planned At Coronado Club

A junior bowling league which will meet at the Coronado Club on Saturday mornings is being organized. Club members' youngsters, ages 10 through 18, are invited to join the league.

Enrollment session for the league is scheduled Saturday, Sept. 10, at 9 a.m. at the Club's La Cana room. The group will be limited to 40 participants.

Mrs. Arlene Held will be instructor for the league. She invites beginners to participate. For further information, Mrs. Held may be contacted at ext. 37270.

# What Are They Looking At?

(Answers from Page 5)



1. AND HERE SHE IS! Her name is Sue Conlon, a summer hire working in the library. Next fall she will be a senior at UNM. A noon-hour dip in the Coronado Club pool is refreshing, too.



2. THIS SIGN is holding the interest of the group of people on page five. It's publicizing the new red classified document cover sheets and folders which are now in Corporation-wide use.

## AEC Gets Low Bid Of \$1,279,700 for Research Building

R. E. McKee Construction Company is apparent low bidder for construction of Sandia's new Research Laboratory Bldg. 861, Phase II. The firm's bid was \$1,279,700, according to the AEC which administers all construction for Sandia Laboratory.

The new three-story building, similar to Materials and Standards Laboratory Bldg. 861, will contain 60,000 sq. ft. of space and will be occupied for the most part by the Research organization, 5000.

Construction includes all necessary heating, air conditioning and special systems such as compressed air, vacuum, natural gas, helium, argon, etc. required for light laboratories and offices.

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

Estimated completion date for the construction is August 1961.



3. Photomicrograph as seen by Joe Darginis shows a cross section, greatly enlarged, of a weld of two dissimilar metals. Markings indicate grain growth of metal from the heat.

## C. P. Mortensen Retires from Sandia

Clarence P. Mortensen retired from Sandia Corporation on Aug. 19. He had worked in Mechanical Inspection Division 2722 while at Sandia.



Prior to coming to Sandia he worked for Sunstrand Machine Tool Co., Aviation Division, in Rockford, Ill. He also worked as a warehouseman in Harvard, Ill., and Vancouver, Wash.

Mr. Mortensen and his wife plan to remain in Albuquerque at 3716 Andrew Dr. NE. They have one daughter living at home who is attending the University of New Mexico, and a son and two grandchildren living in California.

## Supervisory Appointment

GENE C. NEWLIN to supervisor of Invention Reports Division 6011, Patent Manager's Office.



Gene has worked in the Patent Manager's Office since he came to Sandia in March 1953.

Previously he had been with Los Alamos Scientific Laboratory since February 1944, first as a staff engineer and for the last five years in the patent field.

Prior to coming to New Mexico Gene was in charge of contracts and specifications for two years at the Chicago Signal Corps Inspection Zone. He also worked a similar period for Wright Aircraft Radio Laboratories in Baltimore and Chicago and a year for General Electric in Fort Wayne, Ind., in the engineering field.

Gene studied electrical engineering at Indiana Technical College and is presently studying toward a law degree through LaSalle Extension school.

He is on the executive committee for the Professional Group of Nuclear Scientists and is chairman of the scholarships and awards committee for the Los Alamos-Albuquerque Section of the Institute of Radio Engineers.

## Heads Fraternal Group

Mary Hazel Bailey (3423) will be installed as Grand Chief of the Pythian Sisters of New Mexico Saturday, Sept. 17, in Belen during a state convention of the group.

A member of the Belen Pythian Miracle Temple No. 18, Hazel has belonged to the fraternal organization for 12 years. She is also Rani (queen) of Wadi El Ameel Santha No. 40 of Belen.



TOTAL PARTICIPATION in the 1960 United Fund Drive is urged by Beverly Johnson (8121-3). The drive begins at Livermore Sept. 12 and ends Sept. 19. Goal for the Sandia campaign is \$12,000.

## Livermore Employees Set Date to Hold Lab United Fund Campaign

A \$12,000 goal has been set for Livermore Laboratory employees in the 1960 United Bay Area Crusade, according to Roy Maxwell (8225), account executive in the Livermore Valley Campaign, and vice chairman of the Laboratory's drive. The goal for the city is \$40,000 and for the entire Bay Area \$11,250,000.

The drive at Livermore Laboratory will get underway Sept. 12 and end Sept. 19. During this time all 941 employees will be contacted by some 70 solicitors who will offer pledge cards to be signed. Payroll deduction extending over a 12-month period will again be available this year.

Chairman of the Livermore Laboratory drive is Dick Cook (8161-1) and executive solicitor is Ray Brin (8110).

Last year Sandia employees contributed \$9,360 to the United Crusade, over one-third of the \$25,000 collected by the city of Livermore. Sandia Corporation gave an additional \$1,000. Nine Livermore agencies received \$17,911 from the proceeds of the city-wide campaign, while the remaining funds were allocated to other agencies and administrative costs. A total of 263 county, state and

national groups throughout the Bay Area benefit from the fund.

Other officers in the Sandia drive are Ken Purchase (8213-2), treasurer, Marvin Hunt (8213-1), auditor, and Bob Harks (8233-1), publicity. Squad leaders are: R. J. Wilcox (8114-1), Dept. 8110; H. L. Odell (8121-3), Dept. 8120; R. F. Facer (8142-2), Dept. 8140; V. M. Field (8141-1), Dept. 8150; E. R. Helz (8161-3), Dept. 8160; J. E. Miller (8211-3), Dept. 8210; K. J. Bennett (8225-1), Dept. 8220, and H. J. Przystas (8232-4), Dept. 8230.

## Research Colloquia, Seminar Scheduled For Next Two Weeks

Two research colloquia and a research seminar are scheduled during the next two weeks at Sandia Laboratory.

Cmdr. C. A. Zimmerman of the U.S. Navy will speak on "Polaris Missiles" Wednesday, Sept. 7 at 9:30 a.m. Tickets are required for this meeting.

Friday, Sept. 9, Prof. H. P. Robertson from California Institute of Technology will discuss "Relativity Effects On and In Satellites." Tickets are not required for this meeting which begins at 1:30 p.m.

For the mathematics research seminar on Thursday, Sept. 8, Prof. A. J. Thomasian, University of California at Berkeley, will discuss "Some Codes in Information Theory for the Binary Symmetric Channel." Tickets are not required for this meeting which begins at 1:30 p.m.

All meetings are held in Bldg. 815. For further information contact C. C. Hudson (5113), ext. 32267, colloquium chairman.

## AEC Receives Bids For Roofing Bldg. 892

Casper Roofing Co., Inc., of Albuquerque is apparent low bidder for reroofing Bldg. 892, the AEC has announced. The firm's bid of \$16,139 was the lowest of four received. Bids were opened Aug. 18.

The work will include removing the existing roof and replacing it with a gravel-surfaced roof requiring approximately 652 squares of three-ply, built-up material. Work is to be completed within 45 days after the contractor receives notice to proceed from the AEC.

## The Calendar

Sept. 2-16

The Council of Technical and Scientific Societies is providing information for The Calendar, which will appear in each issue of the LAB NEWS, to publicize upcoming meetings of the 19 participating groups.

About half of the societies are members of the Council, according to Mike DiBella,

chairman of the program announcement committee.

Programs often feature a speaker whose topic will interest a wide audience, as well as the sponsoring society, Mike says, and unless otherwise stated, non-members are always welcome to the meetings.

**Sept. 8**  
American Welding Society  
Place: American Pipe and Construction Co. 5101 Williams SE  
Program: Plant Tour — 7 p.m.  
Speaker: Art Parker  
Topic: "Pipe Fabrication Techniques and Tour of Plant in Operation"  
For further information call H. McCracken (ACF), CH 7-0361, ext. 591

**Sept. 12**  
Society of Technical Writers and Publishers  
Place: Coronado Club Staff Room  
Technical Meeting: 7:30 p.m.  
Speaker: Mrs. Bertha R. Allen (3421)  
Topic: "Optimum Utilization of Literary Facilities by Tech Writers"  
For further information call Don Emrick (2322), ext. 26137

**Sept. 13**  
Instrument Society of America  
Place: To Be Announced  
7:30 p.m.  
Program: a color sound film will be shown, "Principles of Automatic Control." Following this will be a short business meeting outlining future talks, seminars, etc.  
For further information call J. H. McCutcheon (1322), ext. 37167

**Sept. 15**  
Council of Technical and Scientific Societies  
Place: Steve Blazick Realty Co. 8200 1/2 Menaul NE  
Hoffmantown Shopping Center  
7:30 p.m.  
Program: Plans for coming year will be decided. Representatives of non-member societies are invited.  
For further information call Frank Clinard (1621), ext. 43251

# SANDIA SERVICE AWARDS



Noel O. Kent  
3242  
Sept. 5, 1950



Clifford Baxter  
4512  
Sept. 6, 1950



Ralph P. Campbell  
3241  
Sept. 6, 1950



Marion E. Scott  
4631  
Sept. 6, 1950

## Ten Year Pins



Joe R. Smith  
4513  
Sept. 6, 1950



Edward D. Stout  
7252  
Sept. 6, 1950



George A. Uszuko  
4581  
Sept. 6, 1950



Douglas W. Ballard  
2564  
Sept. 7, 1950



Edward W. Marsh  
7117  
Sept. 7, 1950



Kenneth E. Reynolds  
4513  
Sept. 7, 1950



Robert G. Silva  
3466  
Sept. 7, 1950



Joseph C. Wynn  
4514  
Sept. 7, 1950



Eugene A. Redic  
3242  
Sept. 8, 1950



James E. Davidson  
3121  
Sept. 11, 1950



Fernando R. Lopez  
3242  
Sept. 11, 1950



Frank H. Martin  
3242  
Sept. 11, 1950



Ted Varoz  
3242  
Sept. 11, 1950



Bennie P. Padilla  
3242  
Sept. 12, 1950



Titus W. Sandoval  
3242  
Sept. 12, 1950



Thomas R. Wright  
3242  
Sept. 12, 1950



Homer Atoz  
2622  
Sept. 13, 1950



Dennis F. Baca  
7523  
Sept. 13, 1950



Walter F. Cihak  
2644  
Sept. 13, 1950



Donald R. Weldon, Jr.  
2643  
Sept. 13, 1950



George L. Dingman  
3242  
Sept. 13, 1950



Roscoe L. Bryant  
4512  
Sept. 14, 1950



Thomas F. Laney  
7241  
Sept. 13, 1950



Sesario C. Cordova  
4613  
Sept. 14, 1950



James S. Henry  
3242  
Sept. 14, 1950



Clyde L. Leyba  
7252  
Sept. 14, 1950



Granville Mann  
4621  
Sept. 14, 1950



Camille A. Rudeau  
4231  
Sept. 14, 1950



Edward P. Darnell  
4254  
Sept. 15, 1950



Haskell V. Jacobs  
7212  
Sept. 15, 1950



William R. Parker  
4254  
Sept. 15, 1950



Theodore H. Reed  
1331  
Sept. 15, 1950



Arthur E. Wickham  
4232  
Sept. 15, 1950

## Five Year Pins

Sept. 3-16

Chandra L. Carson 3462, Alice V. Hodyke 4340, Charles Johnson 7315, C. Christensen 1332, Martin L. Dieter 4423, Donald M. Libby 7532, R. B. Oliver, Jr. 7523, Lewis H. Mason 7313.

C. E. Cundiff 3113, Edith M. Duffy 2715, Oreste J. Ganzerla, 3463, Mearle G. Hicks 8141, Irwin W. Janney 7223, K. E. Pilkington, Jr. 4412, P. A. MacPherson 2644, Thomas M. Myers 7321.

### 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

FLATBED TRAILER, 8' x 10', fine for hauling hay, farm equipment or as base for camper. Marshall, DI 4-0530 after 6 p.m.

DINETTE SET, limed oak; 3 speed vibrator lounge chair; single lens 35mm reflex camera and accessories. Waldorf, CH 2-8303.

ENCYCLOPEDIA AMERICANA, 30 volumes, 1951, will consider best offer. Bazek, AL 5-3429.

MAHOGANY DINING table, hand made, \$10; brass cylinder force pump 1 1/4 suction, 3/4" discharge, suitable for trailer or shallow well, \$5. Hill, CH 3-3493.

SAVAGE .222 rifle w/6x scope and ammunition, \$50; Model 17 .30 cal. Enfield w/sporter stock, ammunition and cases, \$30; size 10 men's rollerskates, \$7. Fairbanks, AM 8-1510.

DINETTE SET, 9 piece, one year old, extra leaf for table, \$99. Thompson, AM 8-2761 after 4 p.m.

BALDWIN-HOWARD spinet piano and bench, less than one year old, \$755 new, will sacrifice for \$575. Lucas, AL 6-3761.

MARLIN MODEL 39A, lever action .22 rifle with Weaver J-2.5 scope, fancy stock, \$50 or best reasonable offer. Netz, AX 9-7036.

DRAFTING SET, instruments, board, square, angles, protractor, etc., \$20. Mattina, 1808 Blume St. NE, AX 9-7060.

SHOTGUN, 12-ga. Springfield automatic with case and cleaning equipment, \$70; bowling ball, 16 lb. with bag, \$10. Galbreath, 3730 Manchester NW, DI 4-4306.

30-06 MODEL 1917 Enfield with Lyman 57 sight, \$25; new Beretta Jaguar .22 auto pistol, \$32.50. Cranston, base ext. 42185.

DINETTE SET, 5 piece, red, \$30. Breslin, AX 9-6625.

PORTABLE HI-FI phonograph, RCA Victor-Mark IX, with diamond needle, worth \$160, sell for \$95; shortwave receiver, complete with earphones, \$29. Granfield, AM 8-1942.

KING CORNET with case, \$90. Miller, 2904 Dakota NE, AM 8-1939.

CAR SEAT, full width for Suburban, new, foam cushions, grey color, \$27.50. McGehee, 1024 Georgia SE, AL 6-3486.

BLOND VANITY with large mirror and bench, matching chest of drawers, \$50. Koetter, AM 8-1009.

TRAILER JACKS, 1 pr., \$5; two 1/4 hp motors; electric fan; gun case; books; Zenith Console radio-phonograph combination. Geibel, AX 9-0275 after 5:30 p.m.

TRICYCLE, large size, \$7. Zumwalt, AM 5-0251.

VAPORIZER, \$3; child's table with chair, \$8; pressure cooker (family size), \$4; portable antenna, \$2. Vale, 428 Gen. Stilwell NE, AX 8-1403.

'52 DODGE sport sedan, R&H, auto, transmission, good motor, paint and tires, \$350. Reeves, 1332 Moon NE, AX 8-1507.

TRAILER HITCH for 1960 Olds, Pontiac or Buick; overload springs for leaf-type springs. Asturias, AX 9-4173.

PLATFORM ROCKER and ottoman, green damask, \$50. Taylor, AX 9-2281.

COPPER TUBING, 22 ft. of 3/4 inch, \$7. Edwards, AM 8-4030 after 5 p.m.

WINCHESTER 30-30, case, 1 1/2 boxes of shells, slightly used, \$60; Hollywood twin beds, metal frames, never used, \$12. Graving, 2518 Britt NE, AX 9-0117.

WRINGER WASHER, '58 Kenmore, \$45. Hafley, AL 6-0752 after 5 p.m.

'60 RENAULT, 4-dr., heater, whitewall tires, ceiling vent, 21,500 miles, \$1400. Lopez, AX 9-0941.

REFRIGERATOR, 9 ft., ideal for apartment, \$35. Lucero, 820 San Clemente NW, DI 4-0480.

MODEL "A" 1930. Abernathy, AL 2-4386.

YOUTH BED, custom made mattress, contour sheets, \$25; pink cotton cut pile rug, 9' x 12', \$10. Shepherd, AL 6-2059.

PLAYPEN and pad, \$12. Joseph, AX 9-6989.

ADOBE HOUSE, 7 rooms, modern, 1 acre and big shed on Highway 47, Bosque Farm. Best offer on down. Skelley, Rt. 1, Box 618, Albuquerque.

'58 FORD, Custom 300, 4-dr., factory air conditioned, Fordomatic, R&H, 27,000 miles, will accept trade. Syme, AX 9-4100 or AX 9-6542.

'58 DESOTO, 4-dr. sedan, 16,000 miles, will discount to \$1650 with no trade in. Fjelseth, 10613 Apache NE, AX 9-8642.

RECEIVER, HEATHKIT MRI, built-in TNS, transistor, power supply, \$125. Day, AL 6-6360.

'52 DODGE 1/2 ton pick-up, four speed, \$295; Spindry washing machine, \$20. Treon, 10204 Toltec NE, AX 8-1066.

FIBERGLASS BOAT, 1960, 15 ft., fully equipped, 35 hp Mercury, electric starter, jr. and sr. skis, life jackets, Concho Tilt trailer, best offer over \$1200. Silva, AX 9-2195.

MOBILE HOME, 15' wide Expando, 3 bedroom, fully equipped, \$2500 down, \$109 a month. Koppel, DI 4-2706.

'51 BUICK Special 4-dr. sedan, R&H, \$150 or best offer. Baker, AX 9-6896.

POODLE PUPPIES, miniature, silver, AKC registered, excellent pedigrees; steel executive office desk and secretary's chair. Rolloson, AL 6-1259.

TYPEWRITER, portable Royal deluxe, quiet, tan color in blue-gray case. Johnson, AL 6-9504.

SOFA, foam rubber cushions, \$35; lounge chair with ottoman, \$10. Volda, AM 8-8397.

'53 DODGE V-8, 4-dr. Coronet, R&H, OD, good gas mileage, \$375. Wycoff, AL 6-7087.

#### NEXT DEADLINE FOR SHOPPING CENTER ADS Friday Noon, Sept. 9

SURPLUS—one car too many, 1953 Cadillac Fordor, PS, R&H, \$395; 16mm B&H magazine camera, f 1.5 lens. Hueter, CH 2-1620.

KODAK RETINA II, 35mm camera with f 2 lens and leather case, \$35. Newman, ext. 36258.

BALDWIN PIANO, blond spinet acrosenic with bench, almost new, will sacrifice. Olson, AL 5-2226.

SEWING MACHINE, automatic Atlas zig-zag with cabinet, never used. Cost \$388.95, sell for \$250 cash or assume \$14 monthly payments. Silva, ext. 47248.

ACCORDION, 120 bass Scandalli, carrying case, lesson books, all for \$100. Anderson, AL 6-4728.

21" TV, Silvertone with stand, \$60. 17" Stromberg-Carlson TV, \$30. Wyant, AX 8-0371.

'59 MOTORCYCLE, All State, 5 hp; ceramic kiln, 110 volt. Calvery, AM 5-0351.

OUTBOARD MOTOR, 5 hp, like new, \$90; '32 Ford chopped/channelled '57 T-bird engine, \$350. Anderson, AX 9-4518.

RUG, 12' x 18' gray, all wool, with pad, \$150; Bundy B-flat Clarinet, \$75. Parsons, AM 8-6680.

'60 ALLSTATE motorcycle, model 175, 300 miles. Whitehill, AX 8-0131.

WALL FURNACES, two, natural gas burning, complete with thermostats, \$95. Martin, 4631 Hannett NE, AL 6-6785.

'54 JEEP wagon, 2-wheel drive, overdrive, 6 cyl., \$575. Romero, DI 4-0302 after 5 p.m.

REFRIGERATOR, 7 cu. ft. Westinghouse with a freezer compartment, clean, \$30. Delnick, AM 8-2530.

BABY BED with mattress, \$15; 17" TV, mahogany, closed front console, \$35. Brown, 520 Tyler NW, DI 4-4484.

243 WINCHESTER; 270 Winchester; 35 Remington automatic rifle; 303 British commercial sporter; .22 revolver; others sell, trade. Butler, 11009 Prospect NE, AX 9-5626.

'59 LAMBRETTA scooter, tinted windshield, buddy seat, \$180. Miller, CH 3-2952.

HOUSE TRAILER, 1958 Detroit, 35' long, 8' wide, \$100 down. Meek, AX 8-1214.

MALE DACHSHUND, red, affectionate, 11 months old, housebroken, has had all shots. McDonald, AM 8-5445.

GARAGE DOOR, metal, w/hardware; Steno-type machine, \$15; '50 Pontiac 2 door, R&H, \$135. Chase, AX 9-7321.

GIRL'S BIKE 26", \$15. Sandra Mohart, 408 Alvarado Dr. NE, AL 5-7805 after 5 p.m.

STROLLER, \$5 crib; and mattress, \$15; rocking horse, \$15. Beatty, AX 9-3429.

BED PILLOWS, new, shredded polyfoam, machine washable and non-allergic, \$1.25 large size, \$1.10 regular size. Harris, DI 4-2510.

'50 FORD, 4-dr. sedan, \$115. Weber, DI 4-5183.

'59 ALLSTATE motorcycle, 125cc, recently bored and overhauled. Costello, AX 9-0563.

AUTOMATIC WASHER, '55 Maytag, \$35. Milligan, AM 8-4484 after 4:30 p.m.

MARE, WHITE, 3 years old, good riding horse, \$100. Russell, AX 8-2439.

STENOCORD dictating machine, make offer. Langston, 6500 Cochiti Rd. SE.

CHERRY DESK, 100 years old, drop leaf \$110, or will trade for late model Singer sewing machine. Taylor, AL 6-3774.

LAST of the Samoyeds, one male, AKC registered, 12 weeks old, pure white puppy. Merillat, 618 Sycamore NE, CH 2-4873.

'57 CHEVROLET Bel-Aire, powerglide, 4-dr. w/w, R&H, Bel-air steering, power brakes, \$1200 or make offer. Holcomb, 2129 Martha NE, AX 9-1115.

ELECTRIC RANGE, 30" wide, large oven, one year old, \$95. Padilla, 2721 Charleston NE, AX 9-0460.

DACHSHUND PUPPIES, AKC registered, beautifully marked. Come see them at 3617 Georgia NE. Tom Latta.

RANCH STYLE table, wooden, 33" x 43" with benches. Ideal for dinette, \$21. Hart, AX 9-8832.

'58 JAGUAR XK150 coupe, silver grey, overdrive, wire wheels, Michelin tires, \$3175. Zownir, AL 6-3717.

SWING SET, all metal, two swings, glider, \$15. Young, AX 9-3102.

'56 CHEVROLET Bel-Aire, 6-cyl., 2-dr. hardtop, R&H, whitewalls. Hoover, AM 8-9439.

'52 HARLEY DAVIDSON "45", needs some motor work, \$125. Goens, Box 224, Cedar Crest, N. M., phone BU 2-3492.

GAS RANGES, two full size deluxe model, new Caloric surface unit built-in gas range. Grossman, AX 9-5926.

'60 THUNDERBIRD, white, all power, factory air, seat belts, low mileage, \$3895. Blake, AL 5-6851.

ACRE in north Albuquerque, high and dry, \$1750 cash, or substantial down payment with terms for balance. Adams, AX 9-2126.

BOY'S BICYCLE, 20" J. C. Higgins, sell or trade for 20" girl's bicycle. Brake, AM 8-8320.

MOUNTAIN HOME, Sandia Park, near store, 2 bedroom w/w carpeting, 2 fireplaces, studio, barn, garage, 3/4 acre, good terms. Schellenbaum, BU 2-3488.

UPRIGHT PIANO, Gabler, need cash, will sacrifice for \$95. Reid, 458 Gavilan Pl. NW, DI 4-0521.

#### WANTED

TRADE HOME in El Paso, Tex., for Albuquerque home. Three bedrooms, 1 1/2 baths, landscaped, redecorated, Bondstone on outside. Disch, AX 9-1201.

DEPENDABLE BABYSITTER in my home to care for two children, ages 3 and 5, mornings only, light housework, Anglin, AL 6-4235.

OLD GUNS OF ANY KIND, old knives and swords, will pay cash. Smitha, 8607 Menaul NE, AX 9-1096.

JOIN CAR pool or ride from Sproul Homes (N. San Mateo) to Bldg. 892, 894 or 880. Chandler, DI 4-6609.

GRANDFATHER'S CLOCK, need not be in running condition. Hill, CH 3-3493.

PIANO, will pay \$150 for used piano in good condition. Larsen, AL 5-6407.

RIDE or to join car pool from North San Mateo Sproul addition to Bldg. 894. Shieler, DI 4-8617.

CHILD CARE in my home, three blocks from Gibson gate. Morris, 920 Kentucky SE, AL 6-0152.

RIDERS TO SHARE driving and expenses to New Orleans, La. Leaving Sept. 9, return Sept. 24. Scott, 9808 Aspen Ct. NE, AX 9-3412.

HOMES FOR KITTENS, as usual no charge, free delivery, unusual markings. Tatum, CH 2-9021.

CANNING JARS, quart and pint sizes. Markham, CH 7-9096.

JOIN CAR pool in area east of Morris and North of Indian School NE, '57 Rambler. Weir, 2117 Martha NE, AX 9-1160.

#### FOR RENT

3 BDR. HOUSE, Princess Jeanne Park, near bases, furnished or unfurnished, available Sept. 1. Sims, AX 9-1250 after 5 p.m.

TWO ROOMS and bath, private entrance, telephone, share kitchen if desired. Ride to and from Sandia, \$60 per month. Jones, AL 5-3390 after 5 p.m.

#### LOST AND FOUND

LOST—Man's ring, gold band with stone in diamond shaped setting in center of black onyx stone. Filusch, AX 9-5932.

LOST—Kodak mailer for film; lady's white gloves; aluminum key on chain; stuffed dog; gold framed glasses in brown case; gold tie clasp. Lost and Found, ext. 26149.

FOUND—Brown glass case; 10 year SC bracelet; glasses in brown case; black and silver cuff link with rhinestone. Lost and Found, ext. 26149.

#### FOR SALE AT LIVERMORE

'58 FORD pickup, 1/2 ton, with canopy, 6 cyl., standard transmission, \$1295. Olsen, Ext. 2320.

'59 RAMBLER station wagon, white, conventional transmission, overdrive, R&H, 12,000 miles, \$2295. Scott, HI 7-5767.

KIRBY SWEEPER, all attachments, \$89.50; Kay Craft guitar, electric pick-up, \$30; Admiral TV, 17"; table model, \$25. Freeman, HI 7-2481.

COLDSPOT refrigerator, 12 cu. ft., \$45; Kenmore automatic washer, \$60. Hasey, Ext. 23305.

'56 CHEVROLET, Bel-Aire, 2-dr. hardtop, sports coupe, automatic transmission, W/W tires, R&H. Mosley, Ext. 2409.

FIBER RUG, 9' x 12', green and white, \$5; Plastic pool, 8' x 18" (deep), \$12; vacation trailer, Santa Fe, 16-foot, steps, five. Reis, Ext. 2544.

HOTPOINT electric range, full size, \$45; bathinette, \$7. Glaze, HI 7-4167.

DESK, blond finish, three drawers left side, top drawer takes typewriter, foot rest, no chair. Hunter, Ext. 2269.

WANTED AT LIVERMORE

ENGLISH bicycles, two 26", one boys, one girls. Gordon, HI 7-5665.

## Sandia Host to Group of Teachers For 1960 Business-Education Day

Thirty new Albuquerque educators toured Sandia Laboratory facilities last week as part of a community-wide orientation program for the teachers.

Called "Business - Education Day," the event was aimed at acquainting the teachers with business and industry in Albuquerque and to introduce them to available community resources which might be of value to them in teaching.

After a welcoming address by S. P. Schwartz, Sandia Corporation president, the group saw the

movie, "Sandia Story," and visited the "Sphere of Science."

After lunch at the Coronado Club, the tour continued with visits to Sandia's solar furnace and 24-inch telescope, IBM 705, Van de Graaff accelerator and the Sandia Engineering Reactor Facility now under construction in Area III and other Area III facilities.

R. C. Colgan (3431-3) was tour guide and coordinator. B-E Day was sponsored by the Albuquerque Chamber of Commerce and the Albuquerque Public Schools.

## Tricky Job This—Building Antenna Support Without Nails or Screws

Among the many jobs Sandia Laboratory carpenters are called upon to perform, the recent construction of a movable support stand for a wide-band antenna stands out as unique.

No metal could be used in the fabrication of the support stand and it had to allow for 180 degree rotation of the antenna.

Carpenters Doomas Easton and Jess Denton (both 4513-2) were assigned the job. Advanced Electronics Systems Division 1424, which operates Sandia's RF Facility, wrote the requirements of the support stand and the carpenters set to work.

Using only wood, wooden pegs and glue, the men planned and

constructed the stand shown in the accompanying pictures. Their only comment after the job was complete was "Too bad the glue is so dark and the weatherproof varnish is so light—makes the job look unfinished."

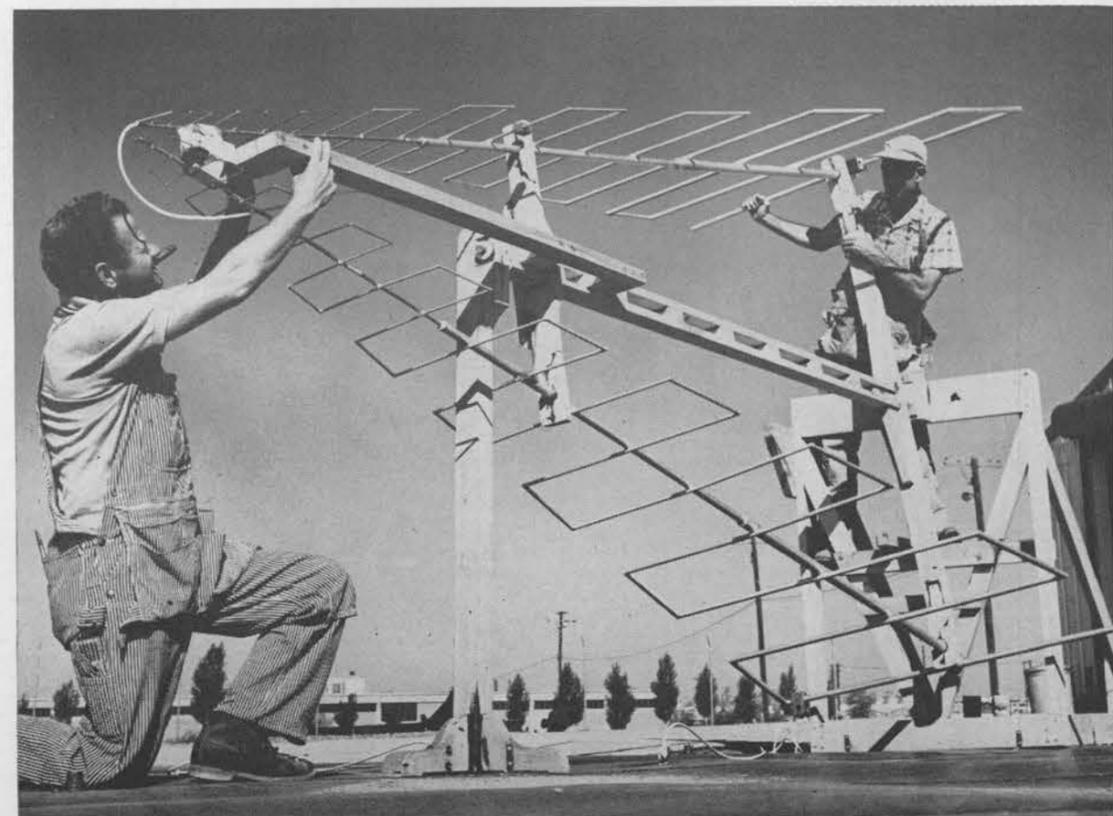
It isn't. The stand performs its function perfectly, according to Division 1424.

Sandia's RF facility is located in an underground room east of Bldg. 880. The antenna rests above the ground on a metal cover plate of the room. Targets subjected to the RF energy are vertically positioned on a small elevator.

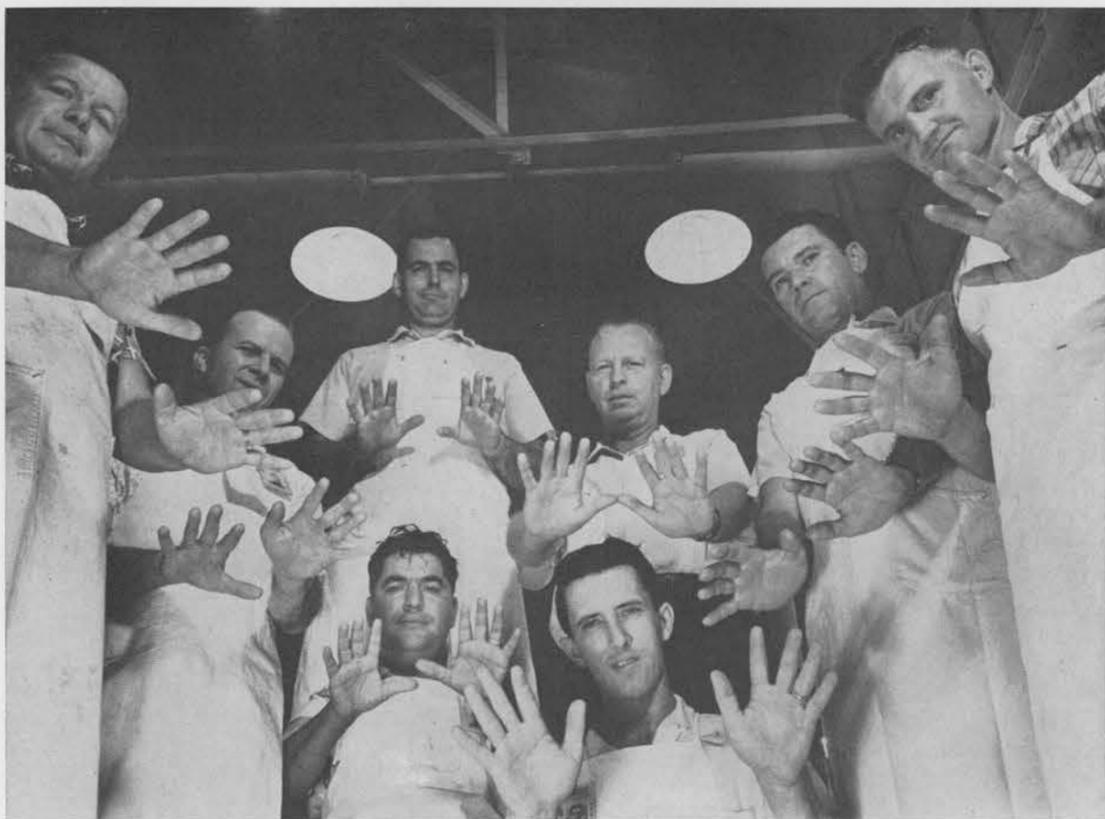
The facility is used for development projects on major components.



CONSTRUCTION DETAIL of the antenna support stand is shown above by Jess Denton. Only wooden pegs and glue (dark areas on wood) was used in the fabrication of the stand. Wooden axle rotates inside a nylon bearing for friction-free operation of stand.



CARPENTERS Doomas Easton (left) and Jess Denton check 180 degree rotation of the movable support stand they constructed for a wide-band antenna, part of Sandia's RF Facility near Bldg. 880.



EIGHTY TESTIMONIALS to safety awareness are displayed by the men of Sandia Laboratory's pattern shop. In 190 years (combined experience by all the men) of working with high speed woodworking power machines none of the men have lost a finger

or had a lost time injury. From left are Tom Mickey, Karl McGinnis, Richard Hicks, B. C. McKay, Ed Becker, and Jim Reed. In foreground are John Atencio, left, and Bruce Higgins, right. The Section conducts a continual safety program.

## Accident-free Pattern Shop Proves That Safety Practices Do Make Perfect Record

A couple of decades ago when a man applied for a job as a pattern maker, the first thing the foreman would ask would be to see the man's hands. If the man had all his fingers, then he was not an experienced pattern maker.

"Times have changed," B. C. McKay (4221-4), supervisor of Sandia Laboratory's pattern shop, says. "Now the emphasis is on safety and safe working habits, as well as know-how."

Among the eight men in Sandia's pattern shop, the combined years of experience total 190 and not a single man has a missing finger or has had a serious accident. The shop was established in 1952 and a disabling injury has never occurred to anyone working there.

"It's fairly hazardous work," Mr. McKay says. "The men operate a number of high speed woodworking machines. Joiners, planers, various circular power saws, band saws, drills, high speed routers, drill presses, lathes and milling machines are some of the equipment used."

### Make Patterns

With these machines men form the beautiful precision pieces of

wood that are used as patterns in the making of molds for casting into metal parts by Sandia's foundry.

Achieving the kind of safety awareness that prevails in the Sandia pattern shop takes a constant effort. As in all Sandia Development Shops organizations, it includes a weekly safety talk with material presented by the supervisor. Safety Engineering Department 3210 helps in the gathering of this material. Emphasis is placed on timely, interesting, worthwhile and pertinent subject matter.

The safety session is also a time in which the men of the section contribute ideas to the safe operation of the shop.

"We stress thinking safety," Mr. McKay says, "and we constantly work to improve and develop safe working habits."

### Safety Procedures

Routine procedure for any job that comes into the pattern shop includes examining it for possible hazards that might arise in its production. Precautions are taken for any possibility of danger.

Periodic inspections are given to all equipment in the shop to make sure it is operating properly. Safety procedures are rigidly adhered to at all times.

From time to time the pattern shop is called upon to provide training for various apprenticeship classes. When the trainees come into the shop they are given a complete briefing on operation of all equipment. Each trainee is assigned to work with one of the experienced men in the shop throughout his training period. Safety is constantly stressed.

### Long Experience

Most of the pattern makers in Sandia's shop started their woodworking early in life. Average number of years of experience for the eight men in the shop is 23.

Karl McGinnis heads the list with 34 years experience closely followed by Mr. McKay who has 31 and Tom Mickey with 29. Richard Hicks has 26 years experience while John Atencio and Jim Reed have 22.

This is a lot of years and the men have a lot of fingers. Safety awareness has kept them intact.

"Nowadays," Mr. McKay says, "the best pattern makers are the ones with 10 fingers."

## IRE to Hear High Speed Photo Talk September 7

Dr. Harold E. Edgerton will be the featured speaker at a dinner meeting of the New Mexico Section of the Institute of Radio Engineers Wednesday, Sept. 7.

"High Speed Photography" will be the subject of Dr. Edgerton's talk. Movies of the testing of Jacques Cousteau's diving saucer and deep sea explorations will be shown. Dr. Edgerton is chairman of the board and vice president of Edgerton, Germeshausen and Grier. He is professor of electrical measurements at Massachusetts Institute of Technology.

The meeting will be held at Kirtland Officers Club. Social hour begins at 6, the buffet will start at 6:30 p.m. Guests are welcome. For reservations or further information call Nick Bourgeois (1414-2) today.

## Presents Parachute Paper At Symposium

Milton T. Kane (5141) presented a technical paper this week at the Institute of Aero Sciences Symposium on Recovery of Space Vehicles in Los Angeles, Calif. Title of the paper was "A Guided Parachute System."

## Sandia's Safety Record

**Sandia Laboratory HAS WORKED 14,700,000 MAN HOURS OR 411 DAYS WITHOUT A DISABLING INJURY**

**Livermore Laboratory HAS WORKED 3,660,000 MAN HOURS OR 1657 DAYS WITHOUT A DISABLING INJURY**