

Katheryn Lawson Author of Recently Issued Infrared Spectroscopy Text

"Infrared Absorption of Inorganic Substances" is the title of a new book written by Katheryn E. Lawson of Sandia's Physical Sciences Research Department.

The book was published by the Reinhold Publishing Corporation of New York.

Mrs. Lawson began her studies in the field of spectroscopy in the fall of 1958, after coming to Sandia Laboratory. Previously she had obtained her Bachelor's degree in chemistry from Dillard University in New Orleans, her MS from Tuskegee Institute in Alabama, took graduate work at the University of Wisconsin, and in 1957 was awarded her PhD in radiochemistry at the University of New Mexico.

"I couldn't find much up-to-date information on spectroscopy," she said. "As I started collecting data from scattered sources, the book took form." A large part of the book was written while Mrs. Lawson was on a maternity leave of absence.



When Mrs. Lawson wrote to the American Chemical Society describing the compiled material and requesting permission to use copyrighted material, her letter was referred to Reinhold Corporation. The executive editor then asked to see the rough draft for consideration as a published book.

The contents of the book are related to one phase of her work at Sandia—infrared spectroscopy.

The volume is designed to serve as a source book of spectral information for persons engaged in this phase of spectroscopy.

Part I summarizes current experimental techniques with reference to the controlling factors, and cites the varied applications of infrared spectroscopic studies of inorganic materials. Part II contains correlations from the experimental data of various observers. A glossary and extensive bibliography with index covering the period 1952-60 follow.

Mrs. Lawson has also published articles on her research work in *Spectrochimica Acta* and *The Journal of Inorganic and Nuclear Chemistry*, as well as in Sandia Corporation Technical Memoranda.

K. F. Krug New Dep't Manager In Purchasing

Karl F. Krug, a veteran of 40 years' service with Western Electric, has been named manager of Sandia Corporation's recently organized Price and Cost Analysis Department 4350 in the Purchasing Organization.



Aside from his first five years at the Hawthorne Works and four years at the Kearny Works, Mr. Krug has been stationed the entire time at WE Headquarters in New York City.

His principal assignments have been in the Equipment Engineering Organization, Office Manager at 195 Broadway, Product Programming and Government Contracting. Before coming to Sandia Mr. Krug had been Assistant Manager, Government Communication Sales.

In June, Mr. Krug completed his term of office as president of the Thayer Chapter of the Telephone Pioneers. This chapter has about 3000 members.

G. M. Wing Speaks At Symposium in Colorado Springs

G. Milton Wing presented a technical paper on "Applications of Differential Equations" during the International Symposium on Nonlinear Differential Equations and Nonlinear Mechanics at Colorado Springs, Colo., July 31-Aug. 4.

His manuscript was delivered during a roundtable discussion on Applications of Differential Equations on Aug. 2.

S. H. Peres to Give Paper Based on Sandia Corp. Study

S. H. Peres (3133-1) will present a technical paper at the 69th annual national convention of the American Psychological Association in New York City Aug. 31-Sept. 6.

His paper is entitled "Performance Dimensions of Supervisory Positions—A Factor Analytic Study" and is based on a survey he made of over 400 non-technical supervisors at Sandia and Livermore Laboratories.

This technical paper will be presented as part of a symposium on Predicting and Evaluating Supervisory Performance.

Sandia Corporation LAB NEWS

ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

VOL. 13, NO. 17

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

AUGUST 18, 1961

Numerically Controlled Machine Tool Course Starts Monday for 100 Engineers

Starting Monday, more than 100 Sandia Laboratory engineers will be attending two-hour orientation lectures on numerically controlled machine tools (NCMT). The lectures by E. S. Roth and A. R. Konecny of the Advanced Manufacturing Development Division will present the findings of a recent evaluation study of a two-axis, point-to-point numerically controlled drilling machine.

Numerically controlled machine tools are a relatively new development. They use a computer-like device that "tells" the machine the exact operations required to produce a specified part. These operations are programmed on punched paper or magnetic tape and fed into the computer control mechanism. An operator is required to set up the part for production, but machine operation is usually automatic after the control mechanism is started.

Many of Sandia's suppliers have numerically controlled machine tools. Use of these advanced machine tools increases production and results in more uniform quality of product. Set-up time and lead time are reduced in the manufacture of each part as well as the cost of tooling and operating. Another distinct advantage is their suitability for short production runs as well as extended runs.

"From Sandia Corporation's viewpoint," E. S. Roth (2564-1) says, "use of these machines by our suppliers does save Sandia many dollars in tooling costs since the tape actually replaces much of the tooling normally required. Delivery times for components is also improved due to the reduction of tooling time. It is a necessity for manufacturing development engineers, responsible for the production of Sandia designed items, to understand the full capabilities of numerical control machines and how Sandia suppliers can best utilize them."



EVALUATING a numerically controlled drilling machine are E. S. Roth (foreground) and A. R. Konecny of Advanced Manufacturing Development Section 2564-1. The machine is automatically controlled by the computer-like console operated here by Konecny.

Mr. Roth and Mr. Konecny performed an evaluation of the numerical control drill installed last June in Building 892. The accuracy and repeatability features of the machine have been particularly studied along with the characteristics of the control mechanism and the information needed for tape-programming procedures.

"In our study," Mr. Konecny says, "we also visited a number of manufacturing plants and production lines where these machines were in use to gather up-to-the-minute data on the capabilities of NC machines."

Mr. Konecny is a Sandia summer employee. He is professor of mechanical engineering at Wash-

ington University in St. Louis, Mo.

Their evaluation report will be furnished to the Sandia Numerical Control Study Group, a committee representing several Sandia general organizations. This group is looking at Sandia design requirements and specifications to recommend actions to facilitate full use of numerical control by Sandia suppliers. Headed by John E. Postlewaite (7185), members of the committee are L. E. West (3453), R. O. Dell (4412), F. H. Long (4251), R. E. Berry (7185), and Mr. Roth.

Sandia's Development Shops 4200 organization has ordered a 5-axis machine for prototype production. Its delivery is expected next spring.

Good Deeds Return Home as Seasonal City Floods Damage Sandians' Homes

The employees of Sandia Corporation continually prove, by their support of worthwhile activities, that they are a responsible segment of the Albuquerque community.

Much of their support—in the form of time and talent—is devoted to the community's social agencies which are members of the United Community Fund. Sandians also support these agencies through their contributions to the Employees Contribution Plan.

These agencies are concerned with community welfare: The American Red Cross, The Frances Lynn Home, Inc., The Council of Social Agencies of Bernalillo County, The USO Club (United Service Organization), The Salvation Army, The Legal Aid Society of Albuquerque, Inc., The American Social Health Association, and The National Social Welfare Assembly.

The American Red Cross

Consider the case of an Albuquerque family with 11 children. A month ago, in an hour's time, they watched their home destroyed by a flash flood. They were deprived of food, furnishings, and clothing. During the same hour, similar losses were sustained by many other Albuquerque families. Six of them were

the families of Sandia employees.

The local office of the American Red Cross came to the aid of the flood victims that night, as it does to the victims of any disaster. It provided direct aid to 70 Albuquerque families, 60 of which received food and shelter; 50, replacement furniture; 35, house repair, and three, medical aid. Volunteers worked through the night to alleviate the dangers caused by the flood.

Deeply interested in Red Cross activities during Albuquerque's recent flash floods has been R. J. Hansen, vice chairman of the Red Cross board of directors and chairman of the disaster committee. A. E. Uehlinger, retired AEC-SAO Manager, is a member of the committee and has been working on the scene in the flood areas.

M. J. Madliner (1332) is vice chairman of the disaster committee and J. W. Galbreath (3430) also has been working with the committee.

R. A. Quelle (3122-1) is a former Red Cross board member who maintains a close interest in the organization's work. A. J. Peterson (7254-2) is chairman of the first aid committee.

The Red Cross receives its income from funds donated to

the United Community Fund through the ECP. Funds are apportioned to several areas in the Albuquerque chapter: Home Service, which provides aid to servicemen and their families; Safety Service, which provides first aid and water safety education; Nursing Service, which promotes and assists community nursing programs; and Disaster Preparedness, which provides supplies during disasters.

The Salvation Army

Sam T. Mancuso (3341-1) serves as a member of the advisory board of the Salvation Army. Other Sandia employees, through the ECP, provide funds for the Army's activities. Funds are used to provide food, shelter, and medical aid to Albuquerque families in need, and to support the staff at the Army office.

Salvation Army income is used in five areas: Family Welfare, which provides referral, direct aid, employment, and family counseling; Transient Service, which provides lodging, meals, counseling, and employment service; Maternity Service, through which aid is given to unwed mothers; Missing Persons Bureau, which works with the International Service of Locating Lost Persons;

(Continued on Page 6)



KINDERGARTEN teacher Elaine Wheeler demonstrates uses of modeling clay to young sculptress at Salvation Army nursery school. A graded system of activities is provided for children.

Editorial Comment . . .

A Strong Safety Policy

Recently President Kennedy issued a Safety Policy for the Federal Service.

In accord with our national concern for human life and the well being of all citizens, it is the policy of the Federal Government to safeguard from injury all those who work for it, the directive said.

At Sandia Corporation the words were a welcome confirmation of the strong safety policy that has been in effect here since the beginning of the Corporation. It is the policy of Sandia Corporation to safeguard from injury all those who work here.

Last month, A. R. Luedcke, General Manager of the Atomic Energy Commission, informed K. F. Hertford, Manager of the AEC's Albuquerque Operations Office:

"On June 21, 1961, the President's Safety Award for the year 1960 was presented to the Atomic Energy Commission . . . In addition to this citation the AEC and the contractor employees together have been given the Award of Honor by the National Safety Council . . .

"There is enclosed the President's statement of Policy on Safety in the Federal Service. We are proud that we are meeting its intent.

"We appreciate the benefits that the Commission as a whole and the individual employees alike receive by the reduction of accidents in our operations. Please extend the congratulations of the Commission and myself to all the people in your organizations who have helped to make AEC plants and offices safer places in which to work."

Weddings

LaVerne Baum (8114-5) was married to Bob Hunter in Reno, Nev., on July 14. LaVerne has been with Livermore Lab since April 1958. Following a honeymoon in Northern California and Oregon, the couple returned to their home in Livermore.

Elizabeth Kennedy (8233-2) was married to Walter A. Bodie in a morning ceremony July 29 at the Presbyterian Church of Livermore. Liz has been at Livermore Lab since April 1959. The couple took a short wedding trip through Northern California before returning to Livermore.

Congratulations**Born to:**

Mr. and Mrs. Vernon D. Peckham (1424-2) a son, Jeffery William, on Aug. 3.

Mr. and Mrs. J. C. Pacini (1423-2) a son, James Craig, on Aug. 3.

Mr. and Mrs. James Jardine (8234-3) a daughter, Julie Jeanette, on July 7.

Mr. and Mrs. W. B. Law (5133) a daughter, Kendra Jane, on Aug. 1.

Mr. and Mrs. Leroy Baker (2441-1) a son, Christopher Paul, on July 28.

Mr. and Mrs. William Dehon (3432) a son, David William, on Aug. 9.



Judy Roach (8161-1)

Take a Memo, Please

Never plunge headlong into a job without knowing the hazards of that particular job and the methods of protecting yourself against those hazards. This applies both on and off the job.

Bertha Allen Named In Recent Issue of Women's Who's Who

Bertha Allen, supervisor of Library Section 3421-1, is one of 16 Albuquerque women named in the recent issue of *Who's Who of American Women*.

Women are selected for inclusion in this reference book on the basis of their business or professional positions, vocational achievement, or contributions to community welfare.



CONCRETE SUPPORTS are all that remain of this two story adobe building at Hagan, which was a booming coal town in 1931.

New Mexico Ghost Towns Good Place for Exploring Afternoon

Sandia Corporation employees in New Mexico will find Hagan within an easy day's drive. This is the fourth article of a series describing vacation spots in Northern California and New Mexico.

A real ghost town, Indian pictographs, and a panoramic view of the north side of the Sandias are incentives for a visit to the little-known village of Hagan, about 35 miles from Albuquerque.

Drive north on Highway 422 (US 85) past Bernalillo and Algodones, then start watching on the west side for the turn-off to San Felipe Pueblo. Opposite this turn-off on the east side is a dirt road, which crosses usually dry Tonque Arroyo and meanders through Coyote and Hagan before eventually joining North Highway 10 in the Sandias.

Shortly after crossing the arroyo there is an outcropping of gypsum where rockhounds may find pieces of jasper. A bit further on, but still near the dirt road, are the pictographs and bits of Indian pottery.

Coyote is a settlement of abandoned adobe houses and there is some evidence of coal mining activity. Several miles further the ruins of Hagan cover a strip of land between the dry arroyo and the hillside.

Between 1923-33 the coal mine at Hagan was in full operation. Numerous concrete structures and adobe company houses still stand, although they are in a state of disrepair. When the town was aban-



TEEN CLUB OFFICERS discuss forthcoming social activities at entrance to Club building, 204. Left to right: Margaret Crowson, publicity chairman; Janice Blair, secretary; Carol Kepler, treasurer; Phil Pannington, vice president; Sharon Rowley, entertainment chairman; Jay Clark, refreshment chairman; and Bill Humphreys, Club president. Club sponsors many social and recreational events.

Sandia Teenagers Work Hard to Run Club That Provides Fun—And Education Too

For the past three years, teen-ager dependents of Sandia Corporation employees have been active in "Teen Club." This group of young men and women provide

themselves with various social, recreational, and educational activities. The club members include dependents of AEC and Civil Service employees and dependents of Sandia Base Military personnel.

The club's activities are governed by a Senior Board and a Junior Board of Directors. The Senior Board, consisting of representatives of Sandia Base Officers Club, AEC, NCO Club, Officers Wives Club, and NCO Wives Club, acts as an advisory group for the club's activities. At present, the Senior Board needs a member from Sandia Corporation. The new member will serve as a Sandia Corporation representative on the board.

The Junior Board, composed of club members, is responsible for all planning and expenditures, subject to Senior Board approval.

The activities of Teen Club are organized in two seasonal schedules. During summer months on Monday evenings open house is held from 7 to 9. From 7 to 9 on Wednesday evenings the club members swim at the Sandia Base Officers Club, and from 7 to 10:30 on Friday evenings a planned social activity with free refreshments is sponsored by the club. The winter schedule includes the Friday-evening social activity, and an open house from 1 to 4:30 p.m. on Saturdays.

Planned activities include hayrides, "beatnik" and pizza parties (with free pizza), pot-luck suppers, bingo, seasonal dances with an orchestra, and other programs. All activities are chaperoned by the parents of members.

The facilities of Teen Club are located in Sandia Base

building 204. Located at the club are pool and ping-pong tables, a shuffle-board, a bowling machine, and a juke box. Television is provided, as well as facilities for playing chess, checkers, dominoes, and cards.

The club's director is Pete Fessia (4421), who may be contacted at ext. 29134 for information about membership or club activities.

Employees who wish to volunteer their help to the Teen Club also should call Pete.

Touche!

Bob Chapman (7223) is a member of a small informal group of fencers. The group, now looking for new members who possess a rudimentary skill with the rapier, meets every Tuesday at 7 p.m. at the Albuquerque Academy of Fine Arts. No charge is made for membership. Anyone interested is invited to contact Bob, telephone 256-9672.

New Son

The D. A. Joyner's (4234-1) have welcomed a new heir into their home. Little Stephen Andrew was born July 18.

Sympathy

To D. R. Metheny, Sr. (4574) for the death of his wife in Albuquerque July 28.

To Carl Klecotka (4152) for the death of his father-in-law in Sunland, Calif., recently.

To Kenneth B. Stiver (4513-3) for the death of his mother in Michigan July 24.

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

SANDIA LABORATORY

Employee Publications Division 3432, Bldg. 610
Sandia Corporation, Albuquerque, N. Mex.

LIVERMORE LABORATORY

Publications and Public Relations Section 8233-1, Bldg. 912
Sandia Corporation, Livermore, Calif.

Permission to reprint material contained herein for other than governmental use, may be obtained from the Editor, Lab News, Sandia Corporation

Deadline: Friday noon of the week prior to publication



Telephone Sandia Base
ALpine 6-4411
Ext. 54241



Telephone Livermore
Hilltop 7-5100
Ext. 2395



Member Association Nuclear Editors, Border Council of Industrial Editors and affiliated with International Council of Industrial Editors.

Supervisory Appointments

WILLIAM L. STEVENS to supervisor of Fuzing Systems Division 7162, Systems Engineering Department.



Bill has been with Sandia Corporation since June 1957 and was promoted to section supervisor in February 1960.

Previously he was with Esso Standard Oil for six years as a refinery engineer in the Baton Rouge, La., plant.

Bill received his BS degree in electrical engineering at Virginia Polytechnic Institute and has nearly completed his graduate work in business administration at the University of New Mexico.

From 1951-53 he served in the Army Signal Corps.

He is a member of Eta Kappa Nu, electrical engineering honorary, Tau Beta Pi, engineering honorary, and Phi Kappa Phi, scholastic honorary, and is a registered professional engineer in Louisiana.

JAMES N. EDGEINGTON, JR., to supervisor of Section 1321-1, Timers and Special Devices Division.



Jim has been working in the Electromechanical Development Department since he came to Sandia five years ago.

Immediately before he was at the University of Wyoming where he received both BS and MS degrees in electrical engineering.

He worked for Shell Oil Company in Wyoming and Colorado as a production engineer full-time during two summers and part-time while studying for his Master's degree.

Jim is a member of Sigma Tau, engineering honorary society.

VERNE E. BLAKE, JR., to manager of Strategic Systems Project Department 7110.



Verne came to Sandia as a development engineer in December 1947. He was promoted to section supervisor in 1951 and to division supervisor in August 1957.

Before his employment here, Verne was a field engineer for the research and development division of New Mexico School of Mines, which was located in Albuquerque.

Verne received his BS and MS degrees in mechanical engineering from the University of New Mexico.

He is a member of the American Society of Mechanical Engineers and is a registered professional engineer in New Mexico.

J. D. JONES to supervisor of Scheduling Section 2642-1, Engineering and Research Support Division II.



During his four years with Sandia, J. D. has worked in Budget Division 4171 and in Accounting Methods Division 4113.

Before coming here he was with the Zia Company in Los Alamos for five years in accounting and budget analysis work.

J. D. received his Bachelor's degree in business administration from New Mexico State University. He served two years in the 11th Airborne Infantry.

ROBERT L. PEURIFOY, JR., to manager of Explosive Devices Department 1310.



Bob has been in the Systems Development organization, doing project and electrical systems work, since he came to Sandia in June 1952. He was promoted to section supervisor in March 1956 and became a division supervisor three years ago.

Immediately before coming to the Corporation he graduated from Texas A&M College with a BS degree in electrical engineering.

He is a member of the American Institute of Electrical Engineers, the Institute of Radio Engineers, and is a registered professional engineer in New Mexico.

CLIFFORD S. SELVAGE to supervisor of Warhead Electrical Systems Division 7164, Systems Engineering Department.



Cliff was with Sandia Corporation for 10 months in 1953 and returned in April 1955, working in systems development organizations both times. He was promoted to section supervisor in August 1958.

Before coming to Sandia Cliff worked five years for Westinghouse Electric Corporation in Los Angeles as a consulting engineer in the aircraft industry. During the year and a half between his two employment periods at Sandia, Cliff worked for Westinghouse in Fort Worth as a consultant on the B-58.

He received a BS degree in electrical engineering from the University of Southern California and has been doing graduate work at the University of New Mexico.

During World War II, Cliff served four years in the Navy.

He is a member of the American Institute of Electrical Engineers and is a registered professional engineer in New Mexico.

BERNARD H. BUEFFEL, JR., to supervisor of Measurements Division 1414, Electronics Devices Department.



"Barney" has been at Sandia nine years, working both in technical training and in component engineering. He was promoted to supervisor of Unit Development Section 1411-1 in April 1958.

Previously he taught electronics for seven years at Bucknell University in Lewisburg, Pa., and for three years at New York University, where he also did research work.

He was with the Navy Department a year as an instrument engineer at the Brooklyn Navy Yard.

Barney received a BS degree in electrical engineering from Clarkson College of Technology and a Master's degree from New York University.

He is a senior member of the Institute of Radio Engineers, and is a member of Eta Kappa Nu, electrical engineering honorary, and Pi Mu Epsilon, mathematics honorary.

FRANK W. NELSON to manager of Physical Research Department 5130.



Frank has been with Sandia Corporation seven years and has been working in applied research the entire time. In January 1958 he was promoted to supervisor of Explosive-to-Electric Transducer Division 5133.

He came to Sandia Laboratory directly from the University of Utah where he obtained both his PhD and Bachelor's degrees in electrical engineering.

During World War II, Frank served four years in the Army.

He is a member of Pi Kappa Phi and Sigma Xi, honorary societies.

Sandia Corporation Playing Part in Mountain States R&D Clinic

Sandia Corporation will be participating in the Mountain States Navy Research and Development Clinic to be held in Raton Sept. 28-29. Officials and representatives of the Navy, Federal and State governments, national laboratories, universities, and industry will be attending the two-day conference.

Purpose of the meeting is to rally the creative talents of industrial, educational, and research institutions to help solve technical problems of the Navy.

Technical sessions, presentations of scientific papers, and exhibitions are scheduled.

Sandia's participation will consist of presentation of papers and speakers on scientific panel discussions.

Arnold E. Bentz (7253) is program chairman of the Instrumentation and Testing session. Sandians from Research, Development, Reliability, Field Testing, Quality Control, Manufacturing Engineering, and Materials Development will present papers or participate in discussions. Program arrangements are not yet complete, but will be announced in the near future.

Other technical sessions of the clinics will explore the subjects of Geophysics, Properties and Technology of Materials, Energy Conversion, Electronics, and Modern Research and Design Techniques.

Hosts for the clinic are the State of New Mexico, New Mexico State University, and the Raton Chamber of Commerce. Cooperating sponsors are the states of Arizona, Colorado, Idaho, Montana, Nevada, Oklahoma, Texas, Utah, and Wyoming.

The Navy Department is working with the sponsors who manage the event.

Welcome Newcomers

Aug. 1-11

Albuquerque	
Barbara J. Cowan	4132
Donald A. Downey	3446
Bettye R. Hollingsworth	3126
William F. Lewis	3444
*Juanita McBride	4135
*Lenor W. Morrison	5431
Joan D. Morrow	3421
P. Anne Ruddle	3151
Alabama	
Albert T. Fromhold, Jr. Cullman	5151
Arizona	
Eldon E. Ritterbush, Tempe	4332
George E. Wallace, Tucson	4111
Connecticut	
Jerome B. Allyn, New Haven	1113
Illinois	
David W. Berst, Chicago	7244
John A. Brewster, Champaign	3111
Jerry G. Witt, Chicago	7323
Indiana	
Thomas D. Gardner, South Bend	4412
Robert L. Wixted, Mishawaka	1314
Maryland	
Glenn W. Burger, Bethesda	2332
New York	
Karl F. Krug, New York	4350
Oklahoma	
L. Herbert Pitts, Chickasha	3121
Pennsylvania	
Gerald A. Collins, Leechburg	3451
Bruce T. Reich, Easton	4412
Texas	
Wendel R. Reynolds, Lubbock	7124
Washington	
Paul B. Bailey, Seattle	5421
* Denotes rehired	
Returned from Leave	
Ada Jane Akin	7160
Doris J. Romero	3126
Esther G. Moya	3446
Richard C. Moyer	7524



SECURITY POSTERS produced at Livermore Lab by artist Ben Aiken (8233-3) left, are currently being displayed at AEC locations throughout the nation. Barney Goncher (8241-1) arranged for distribution of the posters. The flying eagle poster (near Ben's right shoulder) has proved to be the most popular of the series.

Pictorial Security Education Gets Good Reception Throughout Country

Snakes, quails, and subterfuge tales are featured in the popular Livermore Lab security posters which have been requested by many AEC locations.

When the Livermore poster program began in the spring of 1960, sample copies were sent to a few AEC installations as a matter of mutual interest. As a result requests were received for the posters from AEC locations and other installations throughout the United States, according to Barney Goncher (8241-1) of the security organization.

As many as 50 copies of a single poster have been requested by San Francisco Operations Office of the AEC. Two installations asked permission to reproduce the posters in their company publications.

So far, 17 different posters have been produced; a new poster each month. They are the work of Ben Aiken (8233-3), a technical illustrator at Livermore Lab. They are printed by Livermore Printing and Bindery Section 8232-2. Dis-

tribution of the posters is arranged by the security organizations at Livermore and Sandia Laboratories. Recently an agreement was reached between the two Laboratories to exchange security posters, first on a three-month basis, and eventually alternating every month. This will provide an even greater audience for posters from each Laboratory.

The most popular Livermore Lab poster, from all reports, shows a flying eagle struck in the breast with an arrow. Accompanying the picture is a verse from Aesop's Fables which states: "The shaft of the arrow had been feathered with the eagle's own plumes. We often give our enemies the means of our own destruction."

"We try to provide interesting pieces of artwork which stimulate thought as well as security-consciousness," said Ben. Most of the ideas for the posters at Livermore Lab originate with Ben, although suggestions have been forwarded by Security and other organizations.

Sandia to Show Supplies Needed to Sustain Family in Fallout Shelter

Civil Defense authorities believe that our survival during an enemy air attack cannot be guaranteed, but that the probability of survival can be greatly increased if we take simple precautions ahead of time.

In an effort to educate Sandia employees about precautions necessary for survival, Corporation authorities are cooperating with the local Civil Defense office. A display showing supplies necessary for two-weeks survival of a family of four will be shown. The display will be presented in various buildings throughout the Technical Area, beginning today.

The requisites for survival of a nuclear attack are simple. A shelter from fallout is required. It may be as simple as a timber and sandbag shelter in the back yard, or as complex and expensive as one wishes to make it. But it must present a barrier of several feet of solid material between the survivor and radioactive materials.

The next requirement is a two-week supply of canned and packaged food and a supply of clean, drinkable water. Water and food supplies should be contained in the shelter, since they are quickly contaminated if exposed to radioactivity.

The other supplies needed for survival may be determined by the individual family. A first-aid

kit and a battery radio are essential. Lamps, candles, and flashlights will be required for lighting. A sterno or gasoline stove for cooking will obviously be needed.

In the event that evacuation rather than shelter becomes necessary, very much the same equipment may be taken along in the family car.

Present Four Sandia Papers at Standard Sessions in Los Angeles

Four Sandians will be presenting technical papers at the Instrument Society of America Physical Measurements Standards Session at Los Angeles on Sept. 11.

K. G. Overbury (2411) will read a paper entitled "Temperature in Length Measurement."

"Certification and Use of Precision Resistance Decades" is the title of the paper written by L. W. Peacock (2412-3).

D. E. Fossum (2412-2) has entitled his technical article, "Why a Standardization Program is Needed for a High Precision Coaxial Connector."

Ralph Morrison (8126-2) will give a paper "Shock Testing Using an Eight-Inch Air Gun." His paper will be part of a session on shock and vibration.

Salton Sea Test Base in California 'Phased Out' By Sandia Corporation After Long Colorful History



BOMB TARGET, 7000 ft. offshore, is visited by D. P. Fifield on one of several motor launches stationed at the Sea. Boats were needed to equip and reach the islands and frequently doubled as rescue craft for stranded hunters and swimmers.

Salton Sea in southern California has been used for drop testing of weapon shapes, as an emergency landing area for seaplanes, for a movie set, and for salt mining operations. Now sand drifts against the instrumentation towers. A guard's footsteps echo through the empty San Felipe Lodge. The sea is once again undergoing a period of transition.

The Salton Sink was once filled by seas flowing northward from the Gulf of California. According to Indian tradition the great lake disappeared "poco a poco" from evaporation until, in the late 1800's, all that remained was a large salt-encrusted area, 273 ft. below sea level, the basis for a profitable salt industry.

Starting in November 1904 the Colorado River reached flood stage four successive times, taxing the Imperial Valley irrigation system then under construction. The flood waters forced the Colorado into a new channel which emptied into the Salton Sink. When the river was mastered three years later the water in Salton Sea had increased to a depth of 72 ft. Even today drainage from the irrigation waters of the Imperial Valley is more than sufficient to maintain the Sea's water level. Average rainfall for the area is only 2.74 inches per year.

During World War II the Navy operated an auxiliary seaplane base at Salton Sea and it still is

an emergency landing area for seaplanes when San Diego is fog-bound. On the shore were two landing strips, several barracks and shops for servicing planes. Torpedo and skip bombing tests were also conducted there by the Navy.

After 'Crossroads' Tests
In 1946 after the "Crossroads" test in the Pacific, the Field Testing organization of Sandia Laboratory (then operated by the University of California) needed a site to make drop tests where the bomb would impact at sea level. An area near Los Lunas, N. M., had been used for such tests but the mile-high altitude was undesirable.

Salton Sea was suitable: the weather was good and the government already owned the land. Salton Sea Test Base, as it was designated, covered over 81 sq. miles, nearly two-thirds of it underwater. The bombing target was located a few thousand feet off shore.

When the first Sandians arrived there was still evidence of where Hollywood crews had filmed the movie "Wake Island." Crescent-shaped sand dunes, found only there and in the Sahara, provided the backdrop for an early version of "The Desert Song."

In March 1947 practically all of Sandia's Field Test organization (except for a secretary and one or two others) were at Salton Sea for the first tests. Glenn A. Fowler, then head of Field Test, was there much of the time during installation of equipment and throughout the early tests. The range was used for non-explosive ballistic tests. The drops were performed by planes from Kirtland Air Force Base, Albuquerque.

Salton Sea Pioneer
Perhaps the person most closely associated with the test base was Howard B. Austin, who began making trips there in March 1947 and was permanently stationed there for eight years. He was responsible for setting up instrumentation on the range and was known by many as "Mr. Salton Sea." At the time he left "the Sea" he was supervisor of Field Operations Division.

Facilities were pretty makeshift during the early years of operation. Sandians stayed at one of several one-story wartime barracks and ate at an Army mess.

Howard Austin recalled, "The old Navy aircraft operations building contained office space but no air conditioning. We added an observation platform. Even so, this was the first time our instrumentation and equipment had been installed in a building. We previously always used crowded trailers."

There was a strangely shaped hangar with wide roof overhang.

Howard said, "The Navy had shop facilities there for working on seaplanes, but we didn't use it much. It was roomy but not very satisfactory—the roof leaked badly and the wind and sand blew through the walls."

Field Test set up a storage area, shop, and dark room for photography in the old Navy aircraft maintenance building. However, Sandians never did find a use for the high flue-shaped tower where the Navy used to hang parachutes to dry.

Water from the Salton Sea is unpotable—it contains more salt than ocean water and only slightly less than the Great Salt Lake in Utah. Therefore, water was obtained from an open ditch which carried water for Imperial Valley farm land. The Navy set up a water treatment plant three miles from the base which was later extensively rebuilt by Sandia.

Flash Flood Trouble
"About once every three years a flash flood would roar down San Felipe Wash, taking out the pipeline and the road," Howard said. "There was nothing except sand to anchor a bridge to, so it was simpler to replace the line and the road each time."

Instrumentation was also simple by present standards. Eight Askania cinetheodolites, originally captured from the Germans in World War II, were housed in four wooden sheds. The sheds stood on tracks and were moved out of the way by trucks when the Askanias were in use. "You had to be careful not to get the building off the track or you would have a hard time getting it back on the rail," Howard noted. There were also Mitchell tracking movie cameras, telemetering equipment, and radar.

The year 1948 was a period of transition. "When Sandia moved in we figured Field Test would operate the base six months at the most," Howard said. "By that time atomic weapons would be tested and perfected. We could write the completion report and look for other jobs. That's all there was to it."

But things didn't work out that way. The Atomic Energy Commission was established and there was a need for a permanent test base. Salton Sea again met the requirements. So through 1948 old facilities were still in use, but planning was underway for permanent buildings and modification of existing structures.

In September 1949 Sandia stationed technical employees at the Sea on a permanent basis. There was the new San Felipe Lodge with its swimming pool, apartments, suites of rooms, and quarters for single persons. Other new buildings included two three-bedroom

houses, a fire station, warehouse, etc.

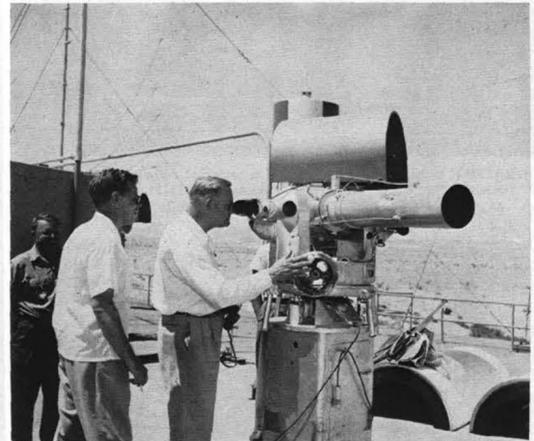
Torrid Temperatures
Most of all air conditioning had become an absolute requirement. October through February the weather was wonderful in the Salton Sea area, but during summer months the mercury rose to 125 degrees with 110-115 degrees normal. Humidity from the large stretch of water made the temperature all the more unbearable.

With permanent employees also came more strict security measures. Previously the base was se-

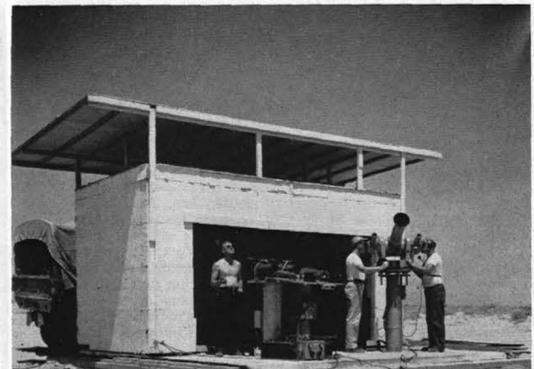
cured by a chain stretched across the main gate. It was padlocked, but the key to the padlock hung on a nail behind a nearby post. Even during bomb drops construction workers continued to work on the base.

As a test range Salton Sea was a busy place. Tests were scheduled every day, weather (visibility) permitting. The limiting weather factor was primarily sandstorms, which occurred most frequently during the spring. In recent years there

(Continued on Page 6)



SANDIA CORPORATION Board of Directors made several visits to the California test base. Frederick R. Kappel, now president of American Telephone and Telegraph Company, is shown operating an Askania cinetheodolite atop the Salton Sea instrument laboratory during a practice drop. Looking on (l to r) are Howard Austin (7223) and J. W. McRae, Corporation president 1953-58.



MOVABLE WOODEN SHEDS protected Askania cinetheodolites from sand and sun when they were not in use. Here (l to r) Henry Sweeney (7244-1), unidentified person, and J. L. Hollenbeck (4611-3) position instrument prior to a drop test.



CONTROL ROOM of Salton Sea Instrument Laboratory looks deserted. Normally five Sandians would be working in this room during tests. Kirtland AFB planes were guided from this location.



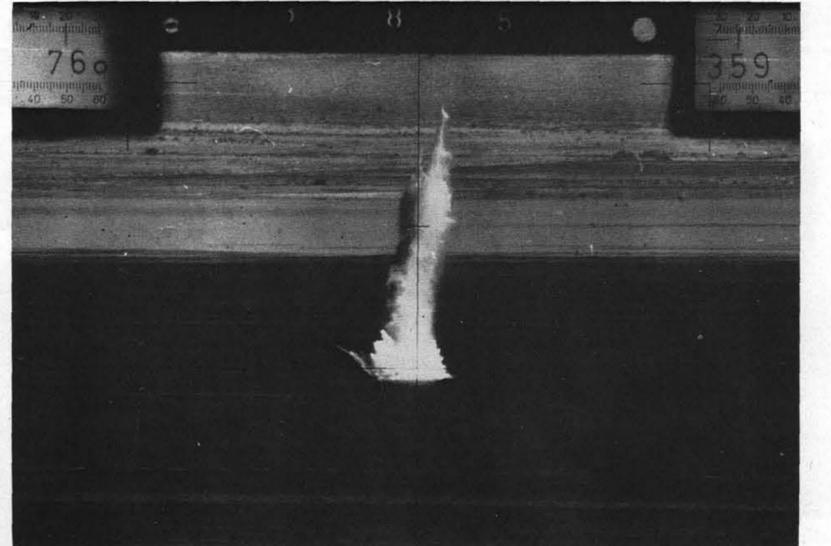
TELEMETERING, RADAR and microwave antennas decorated the Salton Sea instrument laboratory. This was one of the original Navy buildings when the installation was taken over.



BUILDING HIGH sand dune dwarfs Milt Lesicka as he inspects the seal on an unused storage shed.



SWIMMING POOL and patio area of San Felipe Lodge look strangely deserted as D. P. Fifield checks the pool coping for cracks. The lodge formerly was the social center for Sandia employees at Salton Sea, their families, and visitors to the base.



RAISON D'ETRE—Salton Sea Test Base until July 1961, was operated for the U. S. Atomic Energy Commission as a ballistic test range. Many hundreds of weapon shapes were dropped into "The Sea" as Sandia scientific and technical personnel studied ballistic characteristics. This frame from an Askania cinetheodolite showing a bomb hitting the sea is symbolic of all tests conducted at the site.



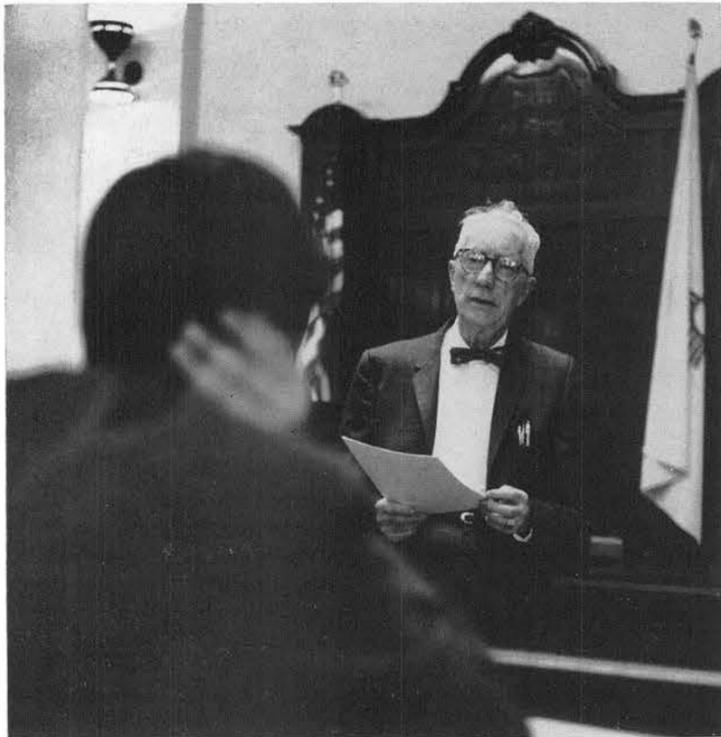
ONLY TELEPHONE remaining at Salton Sea Test Base is on R. E. Fair's desk in the control center. Visitors announce themselves on a microphone at the gate, then a patrolling guard is notified to admit the guests.



SECURITY GUARD R. H. Hiltunen circles the date, June 30, 1961, when Salton Sea Test Base was officially placed on a standby basis. Property protection and maintenance services go on.



RISEING WATERS of Salton Sea nibbled away at sandy shoreline of North Island, which was foundation for instrumentation stations. Howard Austin (now 7222) and former Sandian Carl Hildebrandt checked damage after a storm. Island was abandoned when change of flight pattern outdated it.



LEGAL AID SOCIETY director, Nils Kjellstrom, right, advises client in court chambers at Bernalillo Courthouse. The Society provides legal advice in civil cases to persons unable to pay.

Continued from Page One...

Good Deeds Return Home

and Group Work Service, which maintains a program of religious activities for all faiths.

The Frances Lynn Home, Inc.

Last year, the Frances Lynn Home placed 12 adoptive children in the homes of Sandia Corporation employees, as well as 12 children in other Albuquerque families. The number of placements is unprecedented, according to the president of the Home's board of directors, Mrs. W. W. Hill.

The Home was licensed as an adoption agency by the New Mexico Dept. of Public Welfare in 1936. It was established to provide care for unmarried mothers. It is non-sectarian, and is governed by a 15-member volunteer board of directors. The staff of the Home includes a licensed social worker and a qualified house-mother.

Funds provided by the United Community Fund, to which Sandia employees contribute through the ECP, pay only the staff's salary. The remainder of the budget comes from fees charged monthly to residents of the Home.

Community Council of Albuquerque, Inc.

Several Sandians have contributed time and service to the Council of Social Agencies, a United Community Fund organization which provides liaison between other UCF member groups. Sandians who serve on the Council include S. P. Schwartz, President of Sandia Corporation, a member of the UCF board of directors who also served on the budget panel; R. B. Powell, Sandia Corporation Vice President—Personnel, who is active on the Community Council; H. V. Catt (6021), president of the board of the Rehabilitation Center; and W. H. Chandler (3221), former budget panel chairman.

The entire council income comes from the United Community Fund, to which Sandia employees contribute through the ECP. The Council solves community problems by fact-finding, planning, and joint action. It coordinates the activities of health, welfare, and recreation agencies, both public and private. It also maintains good standards in community services, develops new services, eliminates duplication and waste, and consolidates some programs.

The United Service Organization

The United Service Organization indirectly receives a portion of its income from the ECP through the United Community Fund. USO income is forwarded to a central fund at the national USO office. The national office

annually returns more money, on the basis of military population, to Albuquerque and New Mexico than is contributed here, according to Frank Marfin, Albuquerque USO director.

The Organization uses funds in four ways. It provides emergency aid to service personnel traveling between assignments, and acts as a referral agency with other organizations such as the Red Cross and the YMCA. It integrates service men into the community, and strives to maintain good military-civilian relationships. It provides entertainment for service men, and maintains classes in ceramics and social dancing.

The Legal Aid Society of Albuquerque, Inc.

The Legal Aid Society, under the direction of Nils Kjellstrom, receives about 80% of its total income from the United Community Fund. Although the income status of Sandia employees prevents them from having direct recourse to Society facilities, the money they contribute to the ECP provides a share of the Society's support.

The Society gives legal assistance in civil cases involving family, economic, or property contentions. Four-hundred and twenty lawyers who are members of the Albuquerque Bar Association contribute their time and knowledge to the Society's activities. About 1200 cases are handled by the Society each year. Each case is reviewed to determine whether it may be handled by a Society-sponsored lawyer, and whether the financial status of the client warrants the Society's help.

The Legal Aid Society works with other agencies such as the Family Consultation Service, the Veterans' Hospital, and Kirtland AFB, in providing aid to its clients.

American Social Health Association

The American Social Health Association strives to protect American communities from disease and vice. Although there is no local office, the agency provides Albuquerque with its services. Support is derived from the local United Community Fund, and is pro-rated on the basis of national population.

National Social Welfare Assembly

Although there is no local office of the National Social Welfare Assembly, the agency coordinates social programs locally and throughout the country. It also provides guidance in the formation of local welfare agencies and activities.

Fred Johnson (4112-1) Will Be Featured in Slide Presentation Series for UCF Drive

In coming weeks, Sandia employees will be offering a diversity of services in behalf of the 1961 United Community Fund drive. One Sandian who will be prominently featured in the drive is Fred Johnson (4112-1), who will appear, along with seven-year-old Charla Cook, the 1961 "UCF Girl," in a series of color slides depicting the activities of the drive.

In the slide series, Fred appears as the UCF Girl's father. The series will be used in training UCF solicitors and other service groups. They will be presented, along with a taped narrative, to everyone taking part in training phases of the drive, and to company groups who will be involved in solicitations. The series will have a showing time of about 10 minutes, and will be used in conjunction with lectures and other training procedures.



PHOTOGRAPHER prepares to shoot one of a series of color slides of UCF Girl Charla Cook and Fred Johnson (4112-1). Fred will act as the UCF Girl's father in the slide series.



Continued from Page Five...

Salton Sea Test Base 'Phased Out'

was also occasional haze from the Los Angeles basin.

Almost every weapon Sandia Corporation developed has been dropped over Salton Sea. In addition when scheduling permitted, other government agencies made arrangements through the AEC and Sandia to conduct tests there; SAC used the range for practice drop tests; a Naval Air Force group at El Centro, Calif., conducted parachute development tests; NASA found Salton Sea's instrumentation range and water target suitable for testing the Mercury capsule; and a group from White Sands used the base to check performance of a Nike missile during launching at sea level.

A listing of the types of aircraft flown by Kirtland AFB crews through the years of testing indicate the radical changes. The B-29 was the main drop aircraft, but B-50s were also used and B-36s. The first weapon drops made from a B-

47 were over Salton Sea. Gradually the drop planes shifted from propeller-powered planes to high performance jet bombers and fighters.

Tracking Problems

As the planes flew faster and higher it became harder for instruments to track from existing instrumentation stations. Howard explained, "We needed stations to the north and south of the target to fully cover the release, but the area was all water except for two mud islands." That's how in the fall of 1949 North Island and South Island received a short lease on life.

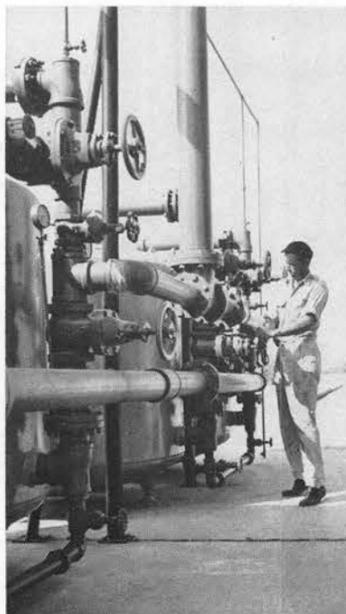
The islands were a constant problem, but tracking instruments needed a stable foundation which they could provide. The only transportation to the islands was by boat, and even then the water close to shore was so shallow that men had to wade to the boats to haul the equipment ashore on skids. A diesel generator was hauled to one island atop a raft resting upon two small boats.

Shortly after the stations were

set up the sea began to rise. After each windstorm more of the shoreline was nibbled away until finally concrete slabs, the foundation for the instrumentation stations, began falling into the water.

The problem of the disappearing islands solved itself. A Navy gunnery range in the Chocolate Mountains 40 miles to the east was activated, making impossible the east-west flight pattern approach to Salton Sea. The flight line was changed to a north-south direction. "We extended instrument facilities to the north," Howard said, "looking broadside at the planes, now flying parallel to the shore. This meant losing the islands wasn't catastrophic; their usefulness had ended anyway."

In 1954 operations at Salton Sea began to phase out. Crews worked one week a month at Nevada Test Site and later moved to Tonopah, Nev., when testing increased there. On July 1, 1961, Salton Sea Test Base was placed on a standby basis, deserted except for a handful of employees to provide maintenance and property protection.



WATER TREATMENT EQUIPMENT is kept in A-1 condition at this desert site by John H. Mitchell. Salton Sea water is too brackish for use, so water is obtained from Imperial County's All American Canal.



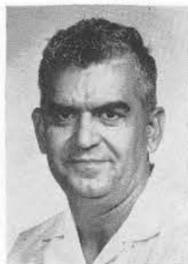
WHEN ELECTRICAL maintenance work is nil George Neufeld helps keep the weeds down—a hot task in the summertime.



HOLE CAUSED by direct hit on water target by 500 lb. non-explosive bomb is examined by D. S. Cain. Instead of explosives, bombs carried electronic telemetering instruments. Drop tests were conducted almost every day, weather permitting.

Sandia Service Awards

15 Years



John H. Fuqua
1411
Aug. 22, 1946

10 Year Awards

Aug. 18-Sept. 1

Frank Bachicha 4613, Abe Bertholomey 4253, Nazario J. Gonzales 4621, James O. Reed 2421, Carmelo P. Rindone 8114, K. E. Scanton 3461, Oris V. Short 4251, Chester J. Smith 1414.
Farrell B. Brumley 7232, Vernon M. Field 8152, Kenneth E. Finders 8221, Jesus M. Lopez 4512, William E. Melegan 4411, Lee B. Neeley 2444, Wilbur L. Drake 4252.
Winston W. French 4254, Holt Gay Jr. 5433, Charles E. Horner 4211, Donald A. McFadden 1322, Harley D. Moody 7212, Leonard J. Nelson 2224, William M. Simpson 2642, Robert P. Kelly 2641.
Ralph T. Miller 4573, John H. Samuelson 4621, Thomas B. Cook, Jr. 5110, Kay M. Graff 4151, K. R. Dickerson 3132, L. C. Hillebrand 3423, Herman Romero 1121.

Horseshoe Pitchers To Match Skills in State Tournament

The New Mexico State Open Horseshoe Tournament, sponsored by the Albuquerque Horseshoe Club and Belen businessmen, will be held at Valencia County Fairgrounds on Sept. 9 and 10. Class A and B first, second, and third-place trophies will be awarded.

A qualifying period will be held Saturday morning, Sept. 9, at the fairgrounds, located a mile north of Belen on Highway 85. Entry fee for the tourney is \$1. Entry blanks may be obtained from Parker Burns (4243), ext. 35246; Jim Taylor (3624), ext. 26425; or Fonzo Cossell (4512), ext. 49152.



"A NEED TO TELL" is considered by L. A. Fisher (7183) as equally important to "a need to know" when it comes to security. Lynn thought up the slogan appearing on security posters.

'Need to Tell' Theme on Posters Real Stopper on Security Boards

"Do You Have a Need to Tell?" is an interesting variation on the security theme which is currently appearing on Sandia Laboratory bulletin boards and outdoor sign boards.

Originator of the slogan was Lynn A. Fisher (7183) who felt that a different viewpoint was needed and that the "need to tell" was just as important for good security as the "need to know."

Technical Artist W. J. Wagoner (3463-1) developed the theme into the eye-catching poster seen throughout the Tech Area.

Percy Wyly, Security Studies

and Education Division supervisor, said, "We certainly hope other employees will be security-minded and will call us when they have suggestions to offer regarding our security education campaign."

Women Bowlers Meet

Women bowlers will meet Tuesday, Aug. 29, at 7 p.m. in the Coronado Club staff dining room to discuss plans for the Ladies' Jewelette League.

For further information call Diane Martin, president, ext. 27155, or Alice Woodley, secretary, ext. 33131.



JEEPERS CREEPING up the High Sierras during the recent Georgetown, Calif. Ninth Annual Jeepers Jamboree included Don Gallagher (8234-3) and his wife. This shot, taken from atop Georgetown Divide, shows some of more than 300 jeeps on trip.

Jeep Buffs Brave High Sierras In 62-Mile Bounce up to Lake Tahoe

With the roar of 300 jeeps still ringing in his ears, Don Gallagher (8234-3) put his dust-covered jeep in two-wheel drive and headed for home. He had just taken part in the Ninth Annual Jeepers Jamboree—a grueling 62-mile climb up and over the High Sierra.

He and his wife were among 825 Jeep Buffs who took part in the recent mechanized hill-climb over granite-strewn trails and rugged mountain terrain in El Dorado County, Calif. The two-day trip, which began at Georgetown and ended at Lake Tahoe, is sponsored by the Georgetown Rotary Club. It is open to anyone with jeep-type vehicles equipped with four-wheel drive.

"This trip was a lot more relaxing than the first time I went three years ago," said Don. "Not knowing then what I would find ahead of me, I never took my eyes from the road. This time I got a

chance to look at some scenery."

"Although the jeep caravan could travel only five miles an hour, two jeeps in the group went out of control and turned over," Don said. "Luckily, no one was injured."

The climax of the trip came when the jeepers, like Caesar, crossed the Rubicon—the halfway mark on the route. There they gathered for steak dinners, campfire singing, and dancing. Musical instruments, including a piano, were hauled in earlier by jeep.

Mrs. Dempsey Died

From New England comes word of the sudden death of Mrs. J. A. Dempsey. Mr. Dempsey was Comptroller and Secretary at Sandia from 1949-54, later returning to Western Electric's Hawthorne Works. He retired from Western Electric last month.

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

- '58 MOTOR SCOOTER, Allstate Cruisair w/buddy seat, speedometer, spare tire, wheel, windshield; AMS Roadmaster boys 26" bicycle, Bendix 2-speed gear. Oliver, 1108 Kentucky NE, AL 5-3959.
- '54 ELECTRIC RANGE, automatic timer, single oven, shown by appointment, \$50. Alexander, 9619 Arvada NE, AX 9-7967.
- '59 TRIUMPH TR3, Tonneau cover, 6800 miles, seldom used, above book. Brown, 299-0788 after 6 p.m.
- '56 OLDS 98 Holiday hardtop, R&H, fully powered, 3 new tires, \$945 or best offer. Johnson, 9705 Euclid NE, AX 9-1057.
- '55 CHEV. pickup, 1/2 ton. Silva, DI 4-6714.
- REM. 722 .257 caliber, Weaver K4 scope, \$95 or trade for chain saw. Adams, 2819 Carolina NE, AM 8-5943.
- WALL CABINETS, new, Philippine mahogany w/hardware, 3 sizes, largest 30x30, \$15; kit prices. Clemons, 1817 Somerville NE, AX 9-6004.
- POGO STICK, 100' range, cost \$8, sell for \$3. Yarbrough, AL 5-4087.
- FINCO FM-3 outdoor FM antenna, improve reception for both FM stations, \$7; assorted two track stereo tapes, \$3-6. Ross, UN 7-2413.
- '57 CHEVROLET, Belair, 4-dr., Powerglide, V-8, R&H, low mileage, cash or trade on clean '53. Kees, AM 8-6553.
- CONTAFLEX SUPER 35 MM camera, latest and best model, w/case, filter, flash gun, \$175 cash or best offer. Moll, 1908 Vermont NE, AX 9-3640.
- MARLIN 30-30 model 336 RC carbine, \$50; 10'x13' umbrella tent, \$50; 3/4-size rollaway bed, \$10. Thomas, AL 6-2371.
- '59 RAMBLER American station wagon, white, 27,000 miles, \$1300. Linn, BU 2-3986.
- '60 FALCON, take over payments. Sandoval, CH 3-6957.
- LUGGAGE TRAILER, 1 wheel, all metal, complete with hitch, canvas cover, lights, \$45 or best offer; '54 Plymouth, R&H, \$200. Netz, AX 9-7036.
- SCREEN DOOR, clear varnish finish, \$5. Burns, 1319 Dartmouth NE, AL 5-3737.
- LIGHT GARAGE window w/glass, wall frame, \$7; maple couch makes into bed, \$22. Chaves, AL 5-6155.
- '52 PACKARD, \$150. Welsh, AX 9-3555.
- AIR CONDITIONER, refrigeration, 1-ton Fedders, reversible window unit, 110-v, \$100. Reynolds, 298-3074.
- SINGER sewing machine, desk model, \$70, cost \$255, used very little, needs re-venishing. Ray, AX 9-1330.
- 2 ELECTRIC MOTORS, 110 VAC, 1 ea., 1/2 and 1/2 H.P. Pitti, AL 6-1629.

- 3-HP ENGINE, Jacobson 2-cycle, \$19.95; new Holland Hornet .049 w/timertank, \$6.95; clear butrate dope, \$2/qt. Svenson, DI 4-7700.
- TV, PORTABLE PHILCO w/stand, \$65; GE clock radio, \$25; portable rotisserie, \$60. Brown, DI 4-6831.
- '48 WILLYS JEEPSTER, R&H, 4-cyl. engine, standard shift w/OD, \$350. Brown, 3617 Piermont NE, AX 9-2510.
- '58 FIAT 600, \$495. Everett, AX 9-6057.
- AKC REG. COLLIE PUPPIES, available 6 to 8 weeks. Lathrop, TR 7-0754.
- 760:15 WW TIRE and wheel, \$10; carrier top, \$5. Miller, AX 9-2736.
- LAVATORY, chrome fittings, \$10; typewriter, Woodstock, \$15; Thompson, AL 5-5282.
- 5 BDR HOME, 2 1/2 baths, Mossman, air conditioner, curtains, drapes, garage, sprinklers front and back, established yard, block wall. Whittaker, AX 9-9172.
- BICYCLE, child's, can be converted for boy or girl, 16" w/training wheels, \$15. Goens, BU 2-3492.
- 3 BDR, 1 1/4 baths, dining room, utility w/220v, built-in range, Spanish fireplace, vigas, sprinklers, landscaped, walled, \$16,000, no qualifying. Hewitt, AM 8-2563 or AM 8-2822.
- 30" GAS RANGE, \$45. Gasser, AL 5-4562.
- 4 BDR, 2 patios, bar-b-q, 16x28 den w/ fireplace, refrigeration air conditioned, 2000 sq. ft. living area, landscaped, carpeted, drapes, all for \$9 sq. ft. Reimholz, AX 9-5107.
- MOSSMAN MEDALLION HOME, 4 mo. old, 3 bdr., 2 bath, large corner lot, landscaped, sprinklers. Page, 3420 Stardust Court NE, 298-3802.
- REGNOR LAMPS w/pagoda shades, table lamp, \$15, floor lamp, \$20, purchased together, \$30. Harper, AX 8-0146.
- '54 CHEV. Belair Tudor, standard transmission, R&H, 2 extra tires and rims. Kinoshita, AX 9-6491.
- '56 FORD STATION WAGON, R&H, OD, \$600, \$800, terms. Mann, ext. 24239.
- CRAFTSMAN, 18" light weight lawn mower w/grass catcher, \$10. Monson, AM 8-5001.
- BEDROOM SET, limed oak; 3-piece foam rubber sectional; Encyclopedia Americana. Libby, 9201 Fairbanks NE, 299-5948.
- WALNUT BEDROOM SUITE, triple dresser, mirror, double chest, twin beds, single 82" headboard, mattress, box springs, \$1500 new, sell for \$1000. Farrell, AX 9-4938.
- '56 TRIUMPH TIGER CUB, overhauled in June, custom upholstery, knobby tires, new battery, extra sprocket, \$195. Neun, 3600 Parsifal NE, AX 9-9188.
- '57 VIKING aluminum boat, 3 1/2 horse Evinrude motor, oars, \$235 cash. Borfour, AX 9-7954.
- NEW \$30 CAMERA SET, \$18, one year's supply film free. Hicks, 321 Manzano NE, AM 8-8640.
- '58 LAMBRETTA motor scooter model 125, \$175. Sandgren, 1510 Pitt NE, AX 9-5007.
- GIBSON GUITAR, standard, w/carrying case and music stand, \$70. Hill, CH 3-3493.
- '61 VOLVO 4-dr., tutone red and white, w/w, 4-spd. trans., \$2100, will trade for older car. Pickens, 3413 Espejo NE, AX 9-1455.
- GOLF BAG, new Burke, won in drawing by non-golfer, \$35 value, bargain at \$15. Coon, AX 8-0845.
- 2 BDR HOUSE, large utility room, landscaped, new FHA, GI appraisal, see to appreciate. Pfeffer, 533 Arizona SE, AL 6-3200.
- CLARINET, Conn B-flat, \$75. Christy, 2932 Hermosa NE after 5 p.m.

NEXT DEADLINE FOR SHOPPING CENTER ADS Friday Noon, Aug. 25

- '51 STUDEBAKER 8 Commander, 4-dr. w/OD, R&H, \$125 cash. Vickers, AL 6-1418.
- FLOOR JACK, 10-ton; small German auto, sell or trade for camp trailer. Pritchard, DI 4-3984.
- KODAK 8 mm turret movie camera and Botany "500" projector, \$60; new Harmony electric guitar, cost \$125, sell for \$70. Trumble, AM 8-7477.
- GIRLS 24" bicycle, \$15. Nelson, AL 6-6300.
- TABLE, Spanish antique, oblong. Ortiz, CH 2-7989.
- GOLF CART, Bag Boy, wheels fold up against golf bag, \$12.50. Olson, AM 8-0832.
- 3 BDR HOUSE, southwest valley, 20 minutes from Sandia, 3 room apts. on 3 acres, sell or rent. Barrett, AM 8-2963 after 5 p.m.
- WALNUT CHAIRS, \$2 ea.; rose chair, \$8; Baby Boogie Wuggly, also is stroller and car bed, \$25. Binkins, DI 4-9610.
- 12 & 16 ga. lithaco, \$75 ea.; 270 w/4-power unerli, \$150; 30-30 Win. carbine, \$55; cabinet, \$45; complete, \$390. Ives, AX 9-7003.
- '51 STUDEBAKER Champion, 4-dr. sedan, OD, \$95. Jefferson, AX 9-1125.
- BALDWIN PIANO, \$200. Corkran, 1300 Jefferson NE, AL 5-1793.
- 3/4-TON PICKUP BOX, \$20. Stuckert, AM 8-1879.
- BABY CRIB, play pen, training chair, diaper pail, barbecue grill, make offer for all or any part. Newton, AL 6-4725.
- AUTO RADIO, Motorola Model 10MX, 12-v, transistor powered, 1 yr. old, \$17.50 less speaker. Petrone, AL 5-3633 after 5 p.m.
- PORTABLE RADIO-PHONO, \$30; blond corner step-table, \$7.50; 20" 3-speed window fan, \$15; 8-place settings Dragonfly Winfield China, half-price. Rueb, AX 9-4805.
- 36" GAS RANGE, copper connections included, 4 yrs. old, \$35. Garrison, DI 4-2023 after 5 p.m. or on weekends.
- BIKE, small Schwinn for 6 to 9 yr. old, \$15. Abbott, AX 9-8860.
- '54 HOUSETRAILER, 28' New Moon, \$1275; '57 Buick Century hardtop coupe, \$710. Henshaw, 9000 Zuni SE, space E-14.
- TWIN BEDS, solid maple; mattresses; springs; chest of drawers; net play pen; highchair; car seat. Martin, AX 8-2064.
- 30.06 BOLT ACTION, FN Mauser, Nato 60, w/4x scope, sling, pad, used one season, \$85. Sharp, AX 8-2702.
- LIONEL 027 TRAIN, will sell accessories separately; student Pan-American corset, \$90; Ironrite mangle and chair, used two yrs., \$100. Costello, AL 6-9702.
- 15 or 44 ACRES in Manzano Mountains, two miles west of Torreon, title insurance, \$75 acre, cash. McKinley, AM 8-4779.
- EXECUTIVE TYPE ASH CRAFT, 3 bdr., den, dbl. garage, no down GI, small down FHA. Mortensen, 6810 Summer NE, AM 8-3626.
- SEARS BAND SAW, \$25; M-W wood lathe and tools, 12-cu. ft. chest type deep freeze; Conn B-flat trumpet. Hyde, AL 6-0062.

- '56 BUICK Roadmaster, all power, air; '53 Olds 98, new tires, battery. Moore, AL 6-2748.
- MODERN ADOBE, 7 room home w/work shop, well, 1 acre on frontage highway, no down or best offer on trade, \$13,000. Skelley, Rt. 1, Box 618, Bosque Farms, phone Los Lunas TO 5-9302.
- GARRARD RC-80 record changer, 12" coaxial speaker, bass reflex cabinet; pool table. DeZeeuw, 4015 Ponderosa NE, DI 4-7392.
- CRAFTSMAN 8" tilting arbor table saw, \$32; 1/2 HP electric motor capacitor type, \$6. Riedel, DI 4-5652.
- VIKING 85 tape deck w/R&P preamp in portable case; 50' redwood fencing w/7 steel drive-in posts, \$15; refrigerator, \$15. Cummings, AX 9-7187.
- AUTOMATIC WASHER, Westinghouse space saver, model L25, guaranteed, \$30. Elliott, 816 Quincy NE, AL 5-8842.
- CADILLAC '57 Fleetwood, factory air, push button glasses, seats, locks, \$1995. Dixon, AX 9-6886.
- 20 WATT HEATHKIT amplifier, preamp, \$30; 15" Stevens woofer, 5KT tweeter, \$70; '58 Plymouth Belvedere HT, V-8, standard shift, \$1050. Stirbis, ext. 47164.
- '57 LAMBRETTA SCOOTER, 150 LD, \$135 or best offer. Hastings, ext. 27266 or 545 Cedar SE.
- KENMORE automatic washer; kitchen cart; wheelbarrow; step table; book stand. Barker, AX 9-2365.
- HOTPOINT automatic ironer, \$40. Renfro, BU 2-3214.
- '48 FORD R&H, OD, new tires, rebuilt motor, \$160. Hackard, AX 8-1368.
- EDEN BILTMORE, 3 bdr., 1 1/2 bath, family room, fireplace, built-in bookcase, colored fixtures, walled, assume loan. Davis, AX 9-9079.
- 3/4 SIZE VIOLIN, balanced bow, case, \$75. Copeland, 1804 Dakota NE, AL 5-4688.
- 20" BOYS BIKE, used 2 yrs., \$18. Stewart, AL 6-9290.
- '57 HOUSE TRAILER, 8' wide, 45' long, \$2250. Brooks, 6629 Edgewood NW, DI 4-1265.
- REBUILT '54-60 Chev., 6 cyl., short block, sacrifice \$105 exchange; Kenmore automatic washer, \$50. McDowell, AX 9-6222.
- SINGER Featherweight sewing machine w/ attachments and case. Erickson, AX 9-6824.
- '58 CHEVROLET 2-dr. Biscayne, V-8, powerglide. Braasch, 408 Mesilla SE, Apt. D, ext. 33152.
- '59 FORD Custom 300, 4-dr., low mileage, V-8 standard shift, white. Lee, 408 Mesilla SE.
- '50 MERCURY Club Coupe, \$225. Wilson, AX 8-0049.
- WING CHAIR, rose color, \$25; Chinese lamps, one pair \$20; man's travel toilet kit; leather case, new, \$5. Metzger, 298-5054.
- 303 SPORTRIZED ENFIELD with sling, \$15. Hipsher, AX 9-0673.

FOR RENT

- PINE paneled, furnished room, carpeted, walk-in closet, private bath and entrance, close to Base, gentlemen preferred. Joseph, AM 8-5414.
- 2 BDR HOME w/stove, refrigerator, garage and air cooler, lease, \$90 per month, water paid. Hawk, AL 6-6264.
- EFFICIENCY APT., 5 min. from Sandia, living room/kitchen combination, bdr., full bath, utilities paid, \$65 a month. White, 207 Vermont NE.
- COUNTRY HOME near Moriarty, large 2-bdr., tables, chicken house, garage, near school bus pickup, \$40 per mo. Dixon, AX 9-6886.

WANTED

- RIDER to Chicago or points on Route 66, leave Sept. 2 or thereafter. Karjala, 514 Alvarado SE, No. 1, 256-1568.
- DRIVER/RIDER in our car pool, vicinity Princess Jeanne Park, south of Constitution to parking lot vicinity of gate 5. Lindsey, 298-0818.
- GIRLS 24" and boys 26" bicycle; 15-21' trailer. Westman, AL 5-6048 after Aug. 20.
- SWAP J. C. Higgins shotgun Model 20 std. 12 gauge, full choke, for any Ruger revolver except Bearcat, or sell for \$40. Taylor, AL 6-3774.
- RIDE to Bldg. 832 or gates 4 or 5, from vicinity of Morris and Snow Heights and Baldwin. Chadwick, 1909 Morris NE, AX 8-1298.
- INDIAN HEAD cents and all old or rare coins purchased. Walsh, AX 8-3173.
- TWO RIDERS in car pool, gate 4. Dourte, 4017 Douglas MacArthur NE, 344-8922.
- ROOMMATE, male, to share apartment, 2 bdr., large living room, patio. Carl, 1832 Alvarado NE, AL 6-2781.
- TO RENT 2 or 3 bdr. furnished house, must have walled or fenced backyard, will be permanent if reasonable. Huston, CH 3-9635.
- INTERIOR building materials, Romex, insulation, paneling, floor tile, overhead tile; will trade 7x8 steel garage door, complete. Scott, AX 8-1554.
- ADDING MACHINE, must be cheap. Miller, AL 5-7716.
- JOIN CAR POOL from vicinity of Lead and Ash to Bldg. 880. Lyon, 242-4996.
- RIDE OR JOIN car pool, vicinity Morris and Ralph, Princess Jeanne Park to gate 4. Chaney, 298-5220.
- SMALL two-wheel luggage trailer. Barker, AX 9-2365.
- GOOD HOMES for four small kittens; also one female cat. Culver, 268-6093.

LOST AND FOUND

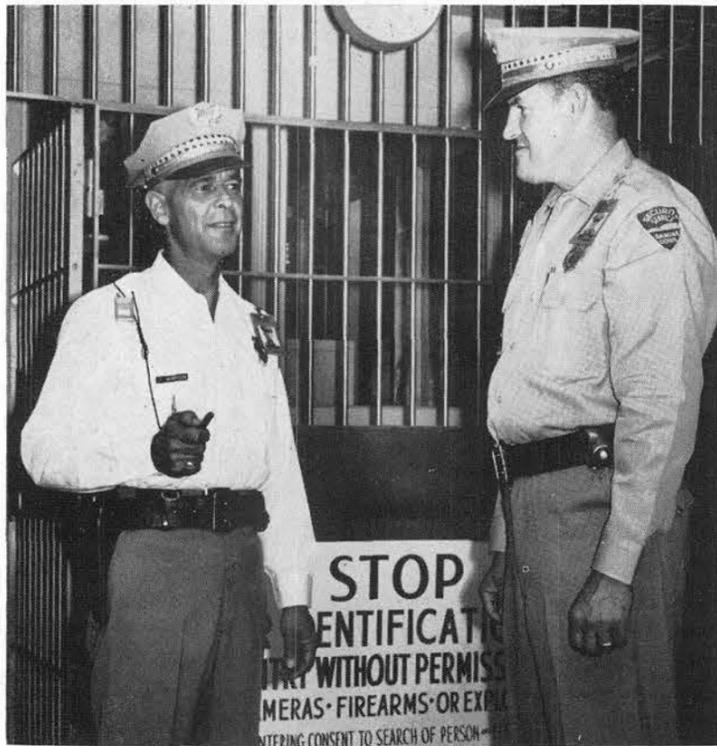
- LOST—Black notebook, keys on chain w/ blue coin container, brown lens sunglasses, ring of keys. LOST AND FOUND, ext. 26149.
- FOUND—Heavy brown frame glasses. LOST AND FOUND, ext. 26149.

FOR SALE AT LIVERMORE

- COLEMAN KEROSENE CAMP stove, Model 745, 2 burners, \$25.00. Richards, HI 7-4389.
- ELMAC A.F. 67 XMTR and NC-200 rec., speaker, enclosure, plate XFRMR, chokes and capacitors to build Mill Power supply, \$200.00. Maxwell, Ext. 2362.
- AIR CONDITIONER, Fedders 1 H.P., will cool three average size rooms, original cost \$210.00, asking \$100.00. Koetting, Ext. 2628.
- NATIONAL "SIXTY SPECIAL" short wave receiver, \$50.00. Hoffer, Ext. 2347.
- TAPPEN RANGE, 60 series, timer and timed outlet, \$50.00; Supercharger for V. W. Roots type, pulleys, belts, and accessories, \$35.00. Mack, HI 7-3295.
- '56 LINCOLN CLUB, all power, R&H, WW tires, \$145.00; '52 DeSoto, 4-door, power steering, R&H, fluid drive, new battery, \$295.00. Henderson, HI 7-4116.

WANTED AT LIVERMORE

- EVINRUDE OR JOHNSON 25-50 H.P. out-board motor. Thompson, Ext. 2255.



WHITE SHIRTS will be worn by guard sergeants and lieutenants starting next Monday. Security supervisors will also wear name plates on their right pockets. Modeling the old and new uniforms are Lt. Vern R. Morrison (left) and Sgt. George A. Uszuko.

Four Tumultuous Ethiopian Years To Be Recounted by Charles Gump

Charles A. Gump, pioneer Livermore Laboratory employee, has returned after almost four years in Ethiopia, filled with tales of life in the small African country. His experiences will be the subject of a series of three lectures he will present at Livermore Lab beginning Aug. 22.

Charlie, a staff assistant in the Program Material Control Division 8234, left Sandia Corporation and was in Ethiopia from September 1957 to June of this year as an instructor for Ethiopian Air Lines. During the time he was there, he and his wife were caught in two upheavals — one natural and one political — an earthquake and a revolution.

These and other experiences he will relate in a descriptive narrative during the noon hour each Tuesday, Aug. 22 through Sept. 5, in room 249, Bldg 912. The title of his lecture series is "Tales of a Ferenji," which, translated from Amharic, the official language of

Ethiopia, means Tales of a "Foreigner or White Man."

Because of press censorship in Ethiopia, many of Charlie's experiences have never been published. He promises to shed new light on the recent short-lived revolution in Ethiopia, with behind the scenes accounts of political unrest and violence. He will also describe living and economic conditions in the country, including an interesting description of the market place in the capital city of Addis Ababa "where you can buy anything — even the services of a professional executioner," Charlie said.

Charlie was with Sandia Corporation for five years before moving to Ethiopia. He worked in the sheet metal shop and a development group at Sandia Laboratory until he transferred to Livermore in 1956 as one of the first employees at Livermore Laboratory. He left for Ethiopia in 1957 and returned to Livermore last month.

Outdoor Events Featured at Club Luau, Swim Carnival on Program

A luau and swim carnival high-light activities this weekend at the Coronado Club. The luau starts at 6 p.m. tomorrow night on the club's patio.

The Hawaiian-style buffet will be served from 6 to 8, Hawaiian entertainers and a synchronized swim group will perform from 8:30 to 9, and Tommy Kelly's band will play from 9 to 1. Tickets for members are \$2.60, and guests \$3.60.

The free swim carnival will be held on Sunday afternoon with pool activities starting at 1 p.m. Participation in the carnival's games and contests will be limited to club members and their families.

A teenage swimming and patio party will be held from 7:30 to 11 p.m. on Saturday, Aug. 26. Tickets cost 25 cents, and must be picked up by parents at the club office or at the door.

Family Nite free movie on Sunday, Aug. 27, is "Johnny Dark." Free cokes and popcorn will be

served during the movie which starts at 6 p.m.

Live music for the Friday evening dances from 5 to 8 will be supplied by Frank Chewiwe tonight, and Al Hamilton on Aug. 25. The \$1.75 buffet is served from 6 to 7:30 p.m.

Strained Back Brings End to Livermore's 103 Injury-Free Days

Livermore Laboratory's safety record of 103 days or 553,570 injury-free man hours ended Aug. 3 when an employee in Division 8222 injured his back. He was attempting to attach an air compressor trailer to a pickup truck. Due to the pain caused by the injury, the employee was unable to perform his duties the following day and was sent home by the company physician.

The injury was the second lost time accident in the history of Livermore Laboratory.

Aspiring Square Dancers May Now Learn How Through Club Lessons

Square dancing lessons will be offered at the Coronado Club starting on Tuesday, Sept. 5. The cost for the 12-lesson course is \$10 per couple.

The classes will be taught every Tuesday night from 7:30 to 10 p.m. by Dick Siebenforcher (4113-1), who is an experienced, professional square dance caller.

The course will be limited to club members, and a minimum of five squares (40 people) will be necessary to conduct the classes.

Registration may be made now at the Coronado Club or at the first class on Sept. 5. For additional information call the club office, ext. 37276.

Positions Still Open On Sandia Flag Football Teams

First game in the 1961 flag football season will be played Aug. 26 with six Sandia Laboratory teams scheduled to compete through Nov. 4.

Dan Power (7241) has been named president of the Flag Football Association. He will be assisted by Len Kracko (2412), vice president, and Fred Romero (3122), secretary.

Games are slated for each Saturday morning at 8:15, 9:30, and 10:45 a.m., on the Sandia Base baseball field.

Positions are still open on some teams. Employees desiring to participate should contact Fred Romero or Seyfred Toledo at ext. 29157.

The teams organized so far include: 7300; 4200 and AEC; 3400 and 4100; 3100 and 7200; 2500, 2600, 4400, and 7500; and 1300, 1400, 2400, and 7100.

J. A. Saavedra to Retire from Sandia At End of August



Jose A. Saavedra (4574) will retire Aug. 31 after 10 and a half years at Sandia.

He will remain in Albuquerque for three or four months, then visit his daughters in California and Ohio. A son resides here.

Since Mr. Saavedra's wife died in June, his plans following retirement are indefinite. His home address is 3042 Truman NE.

Promotions

- Joe L. Silva (4574) to Janitor
- Arsenio B. Baca (4574) to Janitor
- Arthur L. Gregory (4574) to Janitor
- Bernard N. Gauthier (4231) to Technician
- Bennett J. Romano (3446) to Document Clerk
- Rosalie M. Martinez (4212) to Record Clerk
- Mary V. Simpson (4135) to Invoice Clerk
- Polly P. Horne (4135) to Invoice Clerk
- Joseph E. Buchler (8225) to Stockkeeper
- Cleo M. Mozer (8232) to Document Clerk
- Bernard R. Reicks (4412) to Draftsman
- Roy L. Zimmerman (4412) to Draftsman
- Philip S. Conlee (4412) to Draftsman
- William E. Putnam (7322) to Laboratory Assistant
- Robert V. Coates (8121) to Laboratory Assistant
- Donald K. Hoffhins (4621) to Shipping Clerk
- Jesus M. Lopez (4512) to Helper
- Manuel P. Lucero (4512) to Junior Tradesman
- Santiago Chavez, Jr. (4231) to Technician
- Alphonse Jiron (4514) to Boiler Plant Operator
- Edwin C. Hawn (4233) to Layout Technician
- Samuel K. Tabet (4512) to Millwright
- Augustine Apodaca (4513) to Locksmith
- Ralph D. Lovvorn (3444) to Document Clerk
- Doris R. Spohr (3126) to Secretarial Steno.
- Robert D. Hole (4611) to Control Analyst
- (Instrument Catalog)
- Irene T. Brian (3421) to Librarian
- Robert L. Busbee (8232) to Ozalid Operator
- Judith A. Damoulos (8212) to Typist
- Carol M. Johnson (8212) to Secretarial Steno.
- D. M. Martinell (8233) to Document Clerk
- Kenneth A. Blush (4573) to Material Handler
- Antonio Silva (3446) to Document Clerk
- Joy Lee Seaburn (4110) to Secretary
- Grace L. Matuska (8211) to Travel Clerk
- James A. B. Hay, Jr. (8224) to Property Clerk
- Joseph C. Trembl (8224) to Property Clerk
- E. Lorraine Miller (3441) to Document Clerk
- Audrey L. Burns (4623) to Record Clerk
- Helen M. Ballistrere (4151) to Accounting Clerk
- David A. Edwards (8223) to Assembler
- Santiago J. Abeyta (4624) to Messenger
- Joan R. Gillon (9100) to Secretary
- Edward W. Roche (4233) to Platemaker
- Neil B. Gholson (4611) to Stockkeeper
- E. C. Gillivan (3126) to Secretarial Steno.
- Arlene M. Ortega (3463) to Record Clerk
- M. J. McDowell (3341) to Receptionist
- Jack E. Cannon (7324) to Laboratory Assistant
- James E. Clark (7322) to Laboratory Assistant
- Phyllis R. Swartz (3430) to Secretary
- Supervisory Lateral Transfers
- W. E. Henry from 2451-5 to 2343-2
- L. E. Aragon from 4171 to 4153
- B. G. Duncan from 4152-2 to 4172-1
- D. J. Hillard from 4172-1 to 4152-2
- D. S. Wise from 4232-1 to 4231-3
- T. A. Allen from 4231-3 to 4233-2
- C. Crider, Jr. from 4213-2 to 4232-1



MARY CLAY (8241-1) removes "infraction" insert from one of four Security sign boards recently installed at Livermore Lab. The boards provide a record of infraction-free days and are aimed at promoting greater awareness of individual security responsibility. An eye-catching feature of the sign is a mobile "Mr. Q" which revolves in the wind. The Technical Illustration Section, 8233-3, designed and painted the boards, which were constructed by employees of Livermore Lab's Maintenance Section 8222-2.



Mr. Olson

D. M. Olson New Branch Chief For DMA/AEC

D. M. Olson, a division supervisor in Systems Engineering 7160 for the past two years, has been given a leave of absence from Sandia Corporation to serve as a Branch Chief in the Department of Military Application, Atomic Energy Commission.

The newly created branch will be concerned with arming and fuzing system matters with special emphasis on features relating to safety. Mr. Olson will be located in Germantown, Md., and will report to Brig. Gen. A. W. Betts, director of DMA/AEC.

Mr. Olson has been with Sandia since January 1953 and has worked mainly in warhead electric system design. He was promoted to section supervisor in 1955 and became a division supervisor four years later.

His BS and MS degrees in electrical engineering are from the University of Washington.

Until Sept. 1 when he reports to DMA/AEC, Mr. Olson will be on special assignment, reporting to H. H. Patterson (7160).

S. C. Steely to Speak Before IRE Space Electronics Symposium Here

Sandia participation in the forthcoming IRE Sixth National Symposium on Space Electronics and Telemetry will include a technical paper presented by S. C. Steely (7232-1) and a space electronics display.

The symposium will be held in Albuquerque Sept. 6-8 with the exhibits and sessions at Johnson Gymnasium on the University of New Mexico campus.

Mr. Steely has been at Sandia, Rate Generator and Raw Data Conditioner" and will be presented during the Friday afternoon session on Data Handling in Space Communication. Included in the paper is a description of the testing technique and possible sources of error.

Teachers Will Visit Sandia on B-E Day

Thirty teachers of the Albuquerque Public Schools will tour Sandia Laboratory Aug. 30 as part of a community-wide "Business-Education Day."

The teachers, mostly science and math instructors new to Albuquerque this year, will visit Sandia's Sphere of Science, view "The Sandia Story," visit the 24-in. telescope and solar furnace, Van de Graaff accelerator, 7090 computer, and tour Area III facilities.

Welcoming address to the teachers will be made by Glenn A. Fowler, Vice President, Development. Members of Sandia's Small Staff will join the teachers at a luncheon at the Coronado Club.

Purpose of Business-Education Day is to acquaint 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.

Announce Colloquium Schedule for Rest Of This Month

Three meetings of the Sandia Corporation Research Colloquium are scheduled during the remainder of August, according to G. W. Anderson (1310), chairman.

Dr. B. E. Freeman of General Atomics will discuss "Project Orion" on Monday, Aug. 21. Tickets will be required.

Tentatively scheduled for Thursday, Aug. 24, is a talk by Dr. G. H. Vineyard, Brookhaven National Laboratories. He will discuss "Displacement Damage in Solids." Tickets will not be required.

On Wednesday, Aug. 30, Professor J. O. Hirschfelder, Theoretical Chemistry Laboratory, University of Wisconsin, will discuss "The Classical and Quantum Mechanical Generalization of the Virial Theorem." No tickets required.

All Colloquium meetings are held in Bldg. 815 at 9:30 a.m.

Sandia's Safety Record

Sandia Laboratory HAS WORKED 490,000 MAN HOURS OR 14 DAYS WITHOUT A DISABLING INJURY

Livermore Laboratory HAS WORKED 54,000 MAN HOURS OR 11 DAYS WITHOUT A DISABLING INJURY