



CHECK ECP CARDS—First rush of payroll deduction cards for the current ECP drive were checked last week by (l to r) Bill Doyle (3151), ECP coordinator; John Cavanaugh (4131), ECP treasurer; Esther Stevenson (4131); Jack Wiesen (1440), ECP chairman; and Justine Bassett (2110).

Individual Average Up

Early Tabulations Show ECP Contributions Are Increasing

J. P. Cavanaugh (4131), Employees Contribution Plan treasurer, was processing a mountain of payroll deduction cards this week as employees responded to the current ECP enrollment period. Preliminary tabulations showed a total of \$172,672 pledged, with some 2,950 cards yet to be collected.

Group meetings of employees were conducted throughout last week and cards were turned in after the sessions. A number of make-up meetings are scheduled for those employees who missed their scheduled meeting due to illness or vacation. The drive should be completed by Oct. 15.

Individual contributions are averaging higher than last year, according to J. M. Wiesen, ECP Committee chairman. So far, the average contribution is \$42.06 compared to \$36.22 last year.

Employees contributed a total of \$220,702 to the ECP last year.

Fair share contributions are also up, he said. Some 1800 employees had selected this option last year. From the tabulations made so far, 1527 have given fair share contributions, including 93 employees who have contributed one per cent.

"We see this as a fine indication of the community responsibility that Sandians feel," Mr. Wiesen said. "As a group, Sandians have excelled in this area. The campaign this year reflected the feeling, too. Meetings went smoothly. Employees wanted information, not a hard sell. They responded to the needs of the community."

Mr. Wiesen also praised the work of the directorate coordinators and all the people who helped in the campaign.

Book on Wind Tunnel Testing Written by Two Sandia Men

The first copies of "High-Speed Wind Tunnel Testing" are off the presses, culminating several years of work on the book by authors Alan Y. Pope and Kenneth L. Goin.

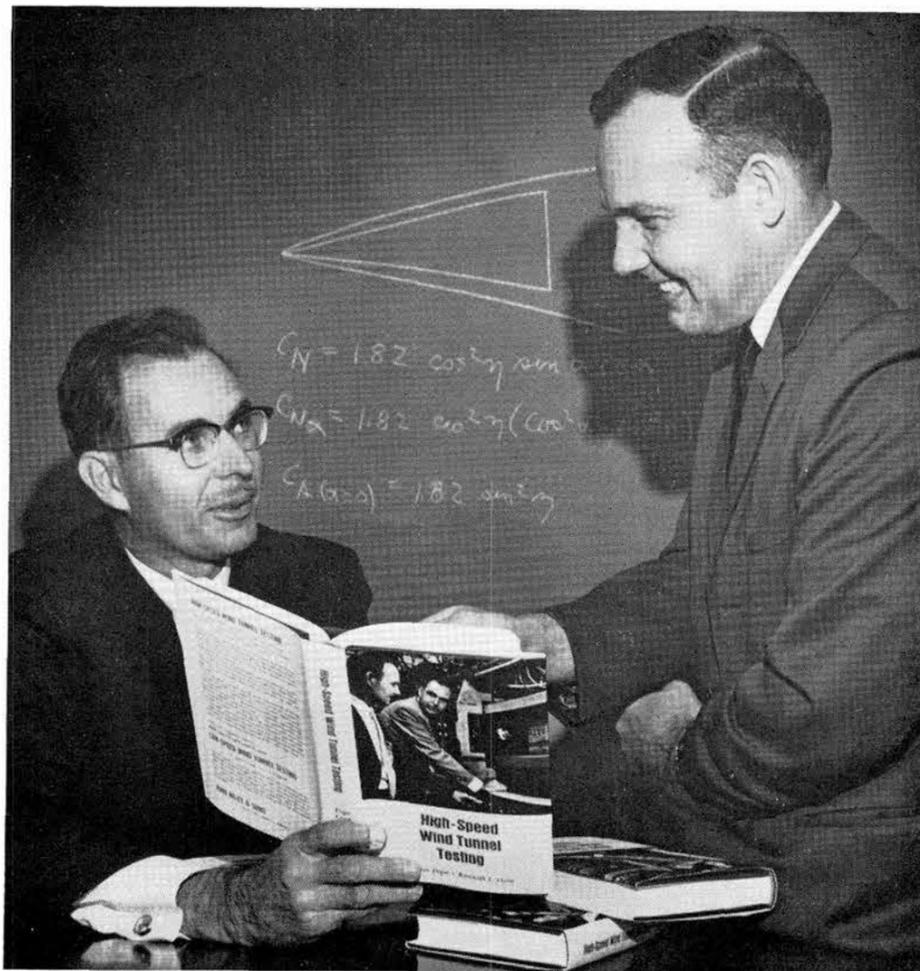
Mr. Pope is Director of Aerospace Projects 9300 and Mr. Goin is a staff member in Experimental Aerodynamics Division 9322. This is the first book they have collaborated on.

The book, published by John Wiley & Sons, covers the design, instrumentation, calibration, and operation of nearsonic, transonic, supersonic, and hypersonic tunnels. The purpose was to furnish a reference for engineers using wind tunnels, to help students taking laboratory wind tunnel courses, and to aid beginners in the field of wind tunnel design. Both theory and detailed practical work are included.

Mr. Pope was professor of aerodynamics at Georgia Institute of Technology for 11 years and worked one year for the National Advisory Committee for Aeronautics (now NASA) at Langley Field, Va., prior to joining Sandia in 1951. He has been associated with Sandia's work in the aerospace nuclear safety program and in the fields of aero- and thermodynamics. Both his Bachelor's and Master's degrees in aeronautical engineering are from Georgia Tech. He is the author of "Wind Tunnel Testing," "Aerodynamics of Supersonic Flight," and "Basic Wing and Airfoil Theory," and has contributed to two technical encyclopedias.

Mr. Goin has been at Sandia since 1958 and was previously at NASA as an aeronautical research scientist. He has published several NASA research memoranda, technical notes, and technical reports dealing with theoretical and experimental control surface characteristics and with blunt trailing edge wings at supersonic speeds. He also worked for Convair's Ordnance Aerophysics Laboratory in Texas. While there he wrote a report summariz-

ing wind tunnel calibration. His Bachelor's degree in mechanical engineering is from the University of Oklahoma.



AUTHORS A. Y. Pope (left) and K. L. Goin admire copy of their new book "High-Speed Wind Tunnel Testing." LAB NEWS photographer Bill Laskar took the cover picture.

SANDIA CORPORATION

LAB NEWS

PRIME CONTRACTOR TO THE ATOMIC ENERGY COMMISSION / ALBUQUERQUE, NEW MEXICO / LIVERMORE, CALIFORNIA

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Sandia to Participate In Nuclear Experiment

Within the next six weeks, the United States will detonate an 80-kiloton nuclear device 2300 feet beneath Amchitka Island in the Aleutian chain off the Alaskan coast. Called Project Long Shot, the nuclear experiment is part of the effort to chart the difference between earthquakes and the earth motions caused by nuclear explosions.

Because of its contribution to the knowledge required as a basis for seeking a total test ban treaty, Project Long Shot is considered an essential National defense objective. Responsible for the Project is the Advanced Research Projects Agency of the Department of Defense. Technical work on-site is under the overall supervision of the Defense Atomic Support Agency.

Seven Sandians will make important contributions to Project Long Shot.

B. F. Murphey, manager of Atmospheric and Underground Nuclear Burst Physics Department 5230, is scientific advisor to the AEC Test Manager of Long Shot. Mr. Murphey and the Advisory Panel will assist the AEC Test Manager in determining that the nuclear experiment will be conducted in a safe manner.

A. J. Max, supervisor of Range Staff/Rockets and Ordnance Division 7233, is technical director for the AEC Projects Group responsible for coordinating device emplacement, instrumentation, stemming activities (filling and tamping the 2300-foot drill hole), timing, firing, accountability, and area safety at shot time.

G. W. Randle of Hydyme and Project Coordination Group 7264 is Mr. Max's assistant and is responsible for the Long Shot instrumentation installation.

H. M. Miller (7264) is project officer for the Sandia Hydyme instrumentation which verifies the yield of the Long Shot device.

M. E. Gilmer (7264) is assisting in this program.

J. A. Shindelar of A&F Field Support Division 7262 is project officer for the Sandia geophone instrumentation which monitors cavity formation. This project is part of the AEC safety program.

W. D. Burnett of Health Physics Division 3312 is safety advisor to the Joint Operations Group.

Mr. Randle is already at the Amchitka site. The others will be departing within the next few weeks.

For the past several years the United States Government has been conducting a national research program for the purpose of improving long range techniques for detecting, locating, and identifying underground nuclear tests. Facts produced under this program are provided to those responsible for nuclear test ban negotiations. President Johnson has often expressed the hope that obstacles to a comprehensive test ban can be reduced.

One aspect of the inspection problem involves the similarity which exists between ground-shock or seismic signals from an underground nuclear explosion and those from natural earthquakes. Last year U.S. scientists studied the seismically active Aleutian Islands and Kuril regions to obtain a clearer understanding of natural seismic events. The ability to locate accurately the hundreds of earthquakes which occur in the Kamchatka-Kuril-Aleutian area annually and to distinguish them from man-made seismic disturbances might reduce the number of unidentified events and hence be of assistance in arriving at a comprehensive test ban treaty.

U. S. scientists have also studied an experiment to follow last year's program designed to measure more precisely the travel times and identification characteristics of seismic signals from the Aleutian-Kamchatka area. These measurements require the generation of seismic signals from a controlled explosion in the Aleutians, and the observation of signal arrival times at seismological observatories—hence, Project Long Shot.

Experience based on many underground nuclear tests, including Project Dribble in Mississippi, provides evidence that such an experiment can be conducted safely and within the terms of the test ban treaty, with radioactive debris contained underground. Special attention has been given to possible effects on the sea otter population in the Amchitka area and to commercial interests in Aleutian sea life. None of these interests will be jeopardized by the experiment.

Ground motion from the event will last less than one minute. It will be perceptible beyond 100 miles only to highly sensitive instruments. Moderate motion, on a scale far less than that caused by an Amchitka earthquake on Feb. 4, will be confined to distances 10 miles or less from ground zero.

TV-I Course Taught by Sandian

A Blueprint Reading course at the Albuquerque Technical Vocational Institute is being taught by Robert F. Armstrong, a structural engineer in Building and Facilities Design Division II.

The new semester at TV-I began Sept. 27 and will continue 15 weeks. Bob teaches two nights a week. He has just completed teaching a TV-I 10-week Blueprint Reading course to Journeyman Carpenters.

A graduate of the University of Illinois, Bob has a BS degree in architecture and is a registered architect in the state of Indiana. He taught architecture classes in night school at Purdue University's extension in Hammond, Ind., for four years prior to coming to Sandia last April.

5-10-15 Years' Service Awards All Received in Three Months

There are a number of Sandia employees wearing emblems denoting 5, 10, or 15 years of service with the Company, but Albert Goodman (5623) has the distinction of receiving all three honors within a three-month period.

The reason: bridging of service.

Al was hired by Los Alamos Scientific Laboratory in the fall of 1946 and transferred to Sandia Branch in September 1949. However, he left Sandia in August 1956 to return to LASL where he worked and completed requirements for his doctorate degree. In June 1960, after receiving his PhD, Al returned to Sandia.

Under a Sandia Corporation Instruction (SCI), an employee's service date is bridged to the earlier date after completion of a new term of employment of five

years. So, on June 20, when Al had been back at Sandia five years, he received his second five-year pin, and also his 10-year pin.

The SCI also states: "With the approval of the Employee Benefits Committee, continuous service with the University of California or the AEC on work transferred to the Corporation may be credited in Term of Employment if the employee was transferred to or hired by the Corporation immediately following such service." That takes Al's service date back to 1946, and with a deduction for the four years he was voluntarily away from Sandia, his new service date is Sept. 17, 1950.

He was presented a tie clasp bearing the Sandia 15-year service emblem on Sept. 17, 1965.

AL GOODMAN displays the 5, 10, and 15-year service awards he received this summer.



College of St. Joseph Conducting Fund Drive for Memorial Library

The College of St. Joseph on the Rio Grande, like every school and institute of higher learning, must establish and maintain library facilities which meet the needs of its students.

Many Sandians have attended the College of St. Joseph. They, along with others who are eager to advance the opportunities of education in Albuquerque, may wish to support the College in its efforts to increase and develop its library.

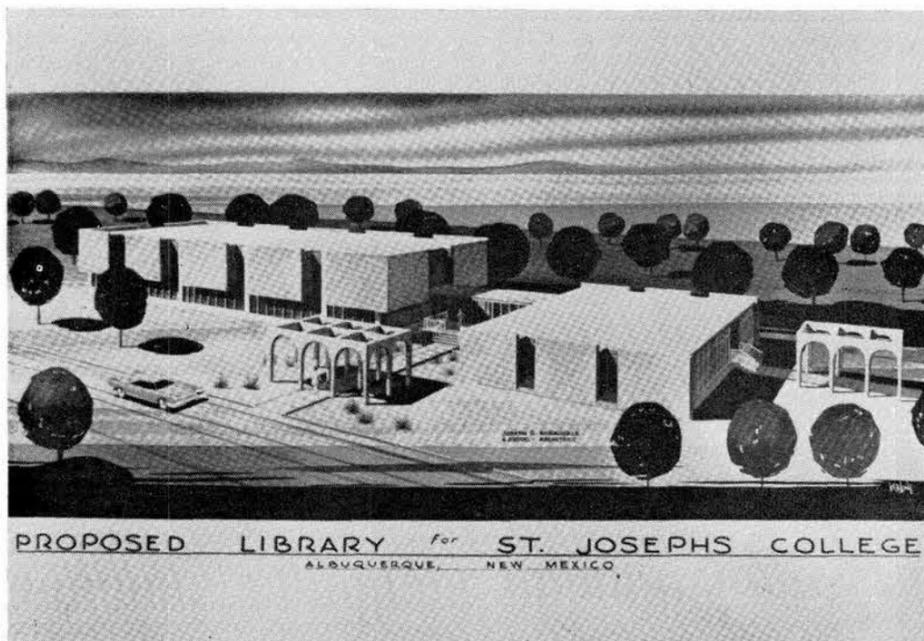
A drive is now underway to raise funds for the construction of a new library. The library will provide stack space for 80,000 volumes; reading rooms; study rooms; mi-

crofilm copying, viewing, and storage rooms; sound booths; and administrative offices.

A special Dennis Chavez Room will contain the late U. S. Senator's books, papers, and memoirs. The Ortega, Herndon, and other historical collections of the College will also be featured in the new library.

Donors may remain anonymous, or may include their name and address with their donation and state that they wish to have their name recorded as a donor.

Donations may be sent to the Dennis Chavez Memorial Library, College of St. Joseph, Albuquerque, N. M., 87105.



SIGN CONTRACT—The International Guards Union of America, Local 27, and Sandia Corporation signed a new three-year agreement which became effective Oct. 1. The Agreement provides for a \$3.70 per week increase for 125 Security employees. From left are R. L. Boyd, Local 27 President; E. C. Peterson, manager of Labor Relations Department 3220; and C. R. King, Union Business Agent.

Supervisory Appointments



ROBERT M. JEFFERSON to supervisor of Reactor Applications Division 5224, Applied Nuclear Science Department, effective Oct. 1.

Bob has been associated with the reactor program since coming to Sandia in February 1957. His work was in reactor design until last January when he moved to reactor applications.

Immediately before employment with Sandia Corporation, Bob was with the Air Force for three years—the majority of the time as an instructor with Training Command, Nuclear Branch, on Sandia Base.

He also worked a brief time as a design engineer for Convair in Fort Worth, Tex.

Bob has a BS degree in mechanical engineering from Michigan Technological University and a Master's in business administration from the University of New Mexico.

He is a member of the American Nuclear Society.



WESLEY F. HODGES, Jr., to supervisor of Visitor Control and Travel Section 8241-1, Security Administration and Operations Division, effective Oct. 1.

Wes joined Sandia at Albuquerque in October 1951. In December 1962 he transferred to Livermore Laboratory as a staff assistant in physical security and visitor control.

He served four years in the U. S. Marine Corps during World War II. During his military service he taught courses at the U. S. Small Arms School in San Diego.

Wes attended Cleveland Business College and National Radio and T.V. School in Cleveland, Ohio.



ARTHUR C. LITTLEFORD to supervisor of Test Equipment Reliability and Engineering Design Practices 2442, System Test Equipment Development Department, effective Sept. 16.

Art's first employment with Sandia was as a temporary summer hire in 1957. He returned as a permanent employee in March 1958. His assignments have been in both environmental testing and product test equipment development organizations.

He has a BS degree in electrical engineering from the University of Oklahoma and has taken graduate study at the University of New Mexico. His honorary society memberships include Sigma Tau, Eta Kappa Nu, and Tau Beta Pi.

Art served four years in the Air Force.



ROBERT I. PETERSON to supervisor of Telemetry and Instrumentation Division 8127, Test Department, effective Oct. 1.

Bob was assigned to telemetry and radar instrumentation organizations after joining Sandia Laboratory in 1952. In March 1960, he transferred to Livermore Laboratory where he has worked mostly in telemetry development.

Before joining Sandia, Bob worked for a year under a teaching fellowship at the University of Washington where he received his BS degree in electrical engineering.

He is a member of Sigma Xi, Tau Beta Pi, and Phi Beta Kappa.

Events Calendar

- Oct. 8-27—Second Biennial Crafts Exposition of Albuquerque Designer-Craftsmen, Botts Memorial Hall, 423 E. Central.
- Oct. 9-12—Climbs in Gila Wilderness area, N. M. Mountain Club, leader Don Mattox, tel. 268-5554.
- Oct. 10—Corrales Casa Tour, tel. 898-2431.
- Oct. 10—Auto tour of Trinity Site, Alamogordo Chamber of Commerce.
- Oct. 10—Bosque Peak climb, N. M. Mountain Club, leader Bart Barton, tel. 877-3590.
- Oct. 16—Football, UNM vs. Utah, 8 p.m., University Stadium, tel. 277-0111.
- Oct. 16-17—Shiprock climb, N. M. Mountain Club, leader Gary Holcomb, tel. 298-3802.
- Oct. 19-Nov.—Maxwell Kachina Doll Collection, UNM Museum of Anthropology, tel. 277-0111.

This listing is for the convenience of employees. No endorsement is implied.

SANDIA CORPORATION LAB NEWS



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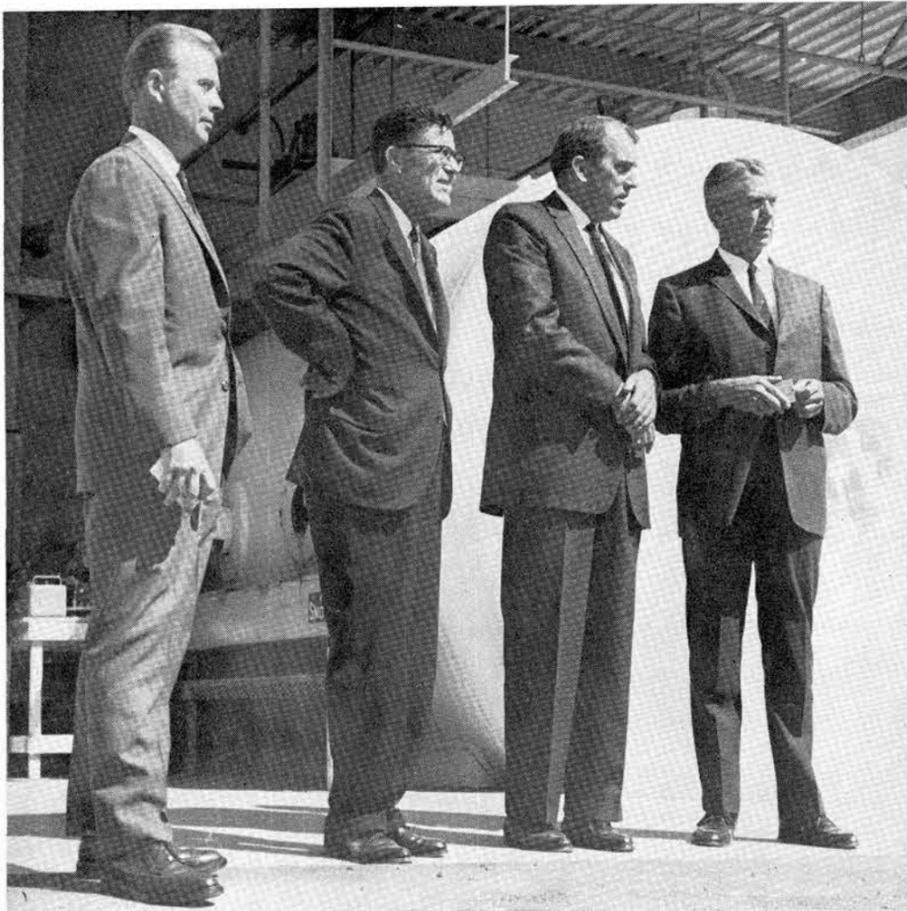
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LIVERMORE NEWS



AEC/SAO ASSISTANT AREA MANAGER for Administration and Security, Donald P. Dickason (r), visited Livermore Laboratory recently, his first visit since being appointed to the post this spring. After a welcome by Vice President B. S. Biggs and briefings by the 8000 staff, he toured various buildings and facilities throughout the Laboratory. Looking toward the new explosive component test facility building in Area 8 are (l to r) A. D. Pepmueller, Manager, Technical Information Department 8230; P. W. Ager, Livermore resident representative, AEC/SAO; F. J. Maloney, supervisor, Hazardous Test Division (Area 8) 8112; and Mr. Dickason.

Experiment in International Living

Two Sandians Give Foreign Students a Home Away from Home

Two Sandians, Phil Leiserson (8212) and Joe Vieira (8166), hosted foreign students this summer under the Experiment in International Living program. Phil and his family had as their guest Patricio Merino de la Cerda of Chile, and Paul Mavunga Kozwa of Southern Rhodesia stayed with the Vieira family.

The Leisersons and Vieiras were two of 15 families in the Livermore Valley who participated in the Experiment by providing "homestays" to students from overseas prior to their attending universities in the area this fall.

Patricio, called "Pato," is 26 years old and has lived all of his life in Santiago, the capital and largest city of Chile. He has traveled extensively through Argentina, Peru, Panama, Curacao, and Colombia. In 1963 he visited the United States. In addition to fluent English, Pato speaks both Spanish and French. His cultural interests tend toward classical music, especially Beethoven's concerts and symphonies. He enjoys reading, history being his favorite; and is active in such sports as tennis, skiing, and horseback riding. He also enjoys coin collecting. At the University of San Francisco, he is working toward a Bachelor of Science degree in business administration.

Paul, who is 23 years old, comes from a small town near Umtali, in Southern Rhodesia. He is of the Mashoma African ethnic group; the other major group in Rhodesia is the Matabele. Paul speaks both Shona and English fluently. Southern Rhodesians work about half of the land as cattle ranches and large farms, so Paul finds American methods of agriculture most interesting. He enjoys music and plays the clarinet. His favorite sport is tennis. Paul was awarded a scholarship under the auspices of the African Scholarship Program of American Universities (ASPAU), and is studying at Sacramento State College. He plans to major in mechanical engineering, preparing for a career in applied mechanics.

A barbecue and swim get-together, held for all of the students and their American "families," highlighted a series of informal parties to acquaint the young

people with residents in the local communities.

The purpose of the Experiment in International Living program, founded in 1932, is to promote world peace through international exchange centered in family living. "Homestays," usually for a month, are arranged for students upon their arrival in the United States. They provide a friendly welcome to American life and customs before the students begin their studies. Every effort is made to place the students fairly near their colleges so they can visit their "families" at holiday times.

The Experiment now has representatives in more than 30 countries of Europe, Latin America, Asia, and Africa.

Self-Instruction Study At Livermore Laboratory

Livermore Laboratory is offering programmed self-instruction study in 12 subjects during off-hours. Six math and three computer language courses—FORTRAN, COBOL, and APT—are scheduled for Mondays and Thursdays; basic electricity, electronics, and transistors classes will be on Tuesdays and Wednesdays.

Since self-teaching textbooks and materials are used, class sessions are more like supervised study halls than conventional classes. An instructor is present to assist students, but there are no lecture sessions. This type of study period permits the student to progress at his own pace through individual effort.

According to SCLL Training Specialist Wil Miller (8212), the courses are not aimed toward obtaining a degree and would not be counted in a degree program. They are designed for the individual who desires practical knowledge or review in a specific field, but who cannot attend local schools because of travel, shift work, specialized subjects, etc.

Study halls will be held beginning Oct. 18 in the personnel interview rooms (Bldg. 911) from 4:20 to 5:50 p.m.

To enroll or for further information, contact Division 8212, ext. 2402.

FOREIGN STUDENTS Patricio Merino de la Cerda (left) of Chile and Paul Mavunga Kodzwa of Southern Rhodesia point out their native countries on a world globe to their hosts (in the center) Phil Leiserson and Joe Vieira. "Pato" and Paul are two of 15 students from other countries who stayed with Livermore Valley families this summer under the Experiment in International Living program.



Welcome Newcomers

Sept. 13-24

California	
Gene L. Angvick, Albany	8162
John S. Benapfl, Livermore	8232
Steven M. Knight, Berkeley	8111
*Raymundo J. Lopez, Livermore	8232
L. Alice Rogers, Livermore	8211
Ronald G. Tremmel, Livermore	8245
Norman R. Wagner, Palo Alto	8163
Nebraska	
Alan B. Campbell, Lincoln	8124

*Denotes rehire

Events Calendar

Oct. 14—Second lecture, LRL Family Lecture Series, "Chemistry with Radioactive Elements," Dr. Peter Stevenson, Head of Radio-chemistry Division, LRL Auditorium, Bldg. 111, 8 p.m.

Oct. 29—Opening Concert, Valley Concert Association, Livermore High School Auditorium, 8:15 p.m.

Congratulations

Mr. and Mrs. Don Miller (8223), a daughter, Sheila Ann, Sept. 9.

Mr. and Mrs. Wes Hodges (8241), a daughter, Wendy Anne, Sept. 7.

Mr. and Mrs. Durwood Green (8115), a son, Patrick Michael, Sept. 14.

Sympathy

To Barney Goncher (8212) for the death of his mother in Johnstown, Pa., Sept. 21.

Livermore Notes . . .

C. H. DeSelm (8200) addressed supervisors of the Western Electric Company Distributing House in San Leandro at a dinner meeting at the Oakland Inn on Sept. 21. His presentation included a discussion of Sandia's history, role, and responsibilities, and a showing of "The Sandia Story" film.

* * *

Bill Carter and Bob Snap (both 8252) won the first and second place trophies in the Second Annual McGuire Open golf tournament which began May 1 and ended Sept. 6.

Bill McGuire, supervisor of Drafting Division 8252 at Livermore Laboratory, sponsors the handicap tournament as an annual event for all interested employees in his division. The tourney is played at various courses in the local area.

This year 18 Drafting Division employees competed on the basis of match play with double elimination.

* * *

The Diablo Art Association has extended special thanks to Ray Campbell (8215) for his photographic contribution to the catalogue of the Association's 16th Annual Art Show. Ray took pictures of Association members, award-winning entries in state and national art exhibits. These photographs were used in the catalogue.

* * *

The Mt. Diablo subsection of ASME will hold its October meeting on the 14th at the Castlewood Country Club. Dr. Cecil Leith of LRL will speak on "Numerical Simulation of the Earth's Atmosphere." Social hour will be at 6 p.m., dinner at 7. Contact Del Elliott (8154) for reservations.

PAGE THREE

LAB NEWS

OCTOBER 8, 1965

HOW TO USE A FIRE EXTINGUISHER was part of the special demonstrations conducted at Livermore Laboratory by Verne McNabney of Safety Division 8215. The demonstrations were staged in observance of National Fire Prevention Week, Oct. 3-9. National statistics show there were 11,900 fatalities from fire last year, and property damage totaled more than \$1.3 billion.





LECTURING to Peace Corps candidates, Jim Shreve (foreground) points out physical characteristics that distinguish high milk-producing goats. This group of Peace Corps students is scheduled for service in South America where goats are raised primarily for meat. With selective breeding, goat population could be improved to be an important source of milk.

Sandia Physicist Jim Shreve Is Peace Corps Consultant—On Goats

More people in the world drink goat's milk than cow's milk. For this reason, the Peace Corps is interested in goats.

Jim Shreve, supervisor of Aerospace Sciences Division 5234, is interested in goats for another reason. He likes them.

"Goats are about as smart as dogs," Jim says. "Much smarter than cows, horses, or sheep. If you have a goat, and you've treated her well, and even if she's with a herd of other goats, you can call her name and she will trot right over."

Jim had never met a goat until 1957. While he was in the Pacific on a full scale testing assignment, his wife bought a goat. His three children suffered an allergy to cow's milk. Goat milk was not readily available commercially, so to Mrs. Shreve, owning a goat seemed the only answer.

"Well, when I got back," Jim says, "I met a goat. Smart critter. Playful. She could open almost any kind of latch on the pen. One thing led to another. I had to find out about goats in self defense."

Now he keeps a select herd of seven or so, most of them champion registered stock. During the years, Jim has become an expert on dairy goats. For several years, he has been superintendent of the New Mexico State Fair Dairy Goat Department, a licensed judge, and active in the state national organizations of the American Dairy Goat Association.

Recently, the Peace Corps Training Center at the University of New Mexico asked Jim to talk about goats with students in training. Jim holds a couple of sessions a week now.

It seems that in most underdeveloped countries, there are plenty of goats but they are kept primarily to eat and not for milk production.

"There are cases where a family with several children can't afford to buy milk," Jim says. "The goats they have produce very little milk. This situation could be reversed within the span of two or three goat generations by selective breeding. A good dairy goat produces from three to more than five quarts of milk a day. This would take care of a small family's needs."

Goats require very little care. They are browsing animals rather than grazing. This means that they prefer leaves, tree bark, flowers, shrubs, and weeds over grass. Goats thrive on the countryside. They are self-sufficient and in most underdeveloped countries, there are plenty of goats around.

Jim feels strongly that with a little care and selective breeding, local populations of goats could be upgraded to become more basic sources of human nutrition.

"Goat's milk is as high in food value as cow's milk," Jim says, "and the fat globules are smaller. Goat's milk can be digested in 20 minutes versus two hours for cow's milk. Allergies to goat's milk are rare. It is especially good for children and invalids."

Jim discusses the details of a goat's life span with the Peace Corps candidates. He talks about breeding, kidding, care, diet, milking, processing milk—details which will



JIM SHREVE shows his grand champion Nubian buck, Oakwood Duchess Masterpiece (N133771). Jim keeps a select herd of about seven goats, has had as many as 22.

help Peace Corps field workers guide others in improving local goat populations to give more milk of higher quality.

Teaching others about goats is nothing new to Jim. For several years, he has been active with 4-H organizations helping youngsters in Bernalillo County with goat projects. Ten years ago, there wasn't a single goat project in the state. Now there are 15 in Bernalillo County alone. Jim adapted a manual on dairy goats for local 4-H use from a text prepared by Pennsylvania State University. New Mexico State University cooperated on the project.

In addition to these activities, Jim serves on the National Research Committee of the American Dairy Goat Association, is vice-chairman of the group hosting a national convention of the organization in Albuquerque this month, directed the Dairy Goat Department during the New Mexico State Fair, and is available to anyone who has problems with dairy goats.

Quite a number of people in Bernalillo County keep goats for the same reason Jim started—allergy to cow's milk. When a goat is sick, owners usually call Jim for advice.

Jim originally bought his place in Alameda to raise quarter horses. He does. He owns five horses, a burro, and four dogs. "But goats have more personality," Jim says.

PAGE FOUR

LAB NEWS

OCTOBER 8, 1965

Fire Prevention Week Program Ends — But the Message Lingers On

With the presentation of a Fire Prevention Week program at the Coronado Club today at noon by Sanado Club members, the observance of this national event closed on Sandia Base. The week has been marked by a number of activities by Field and Plant Operations Engineering Division 4544, responsible for Sandia Laboratory's fire prevention program.

Fire inspection personnel conducted fire drills and inspection of Sandia buildings during the week. Posters, booklets, and dis-

plays carried the fire prevention message to employees.

Many employees viewed a fire prevention film, "Your Clothing Can Burn," and others are scheduled to see it next week. Safety meetings held throughout Sandia stressed the continuing hazard of fires and each employee's responsibility to help prevent fires.

R. W. Cohrs and W. L. Smith of the Division 4544 fire prevention and inspection staff helped judge a Sandia Base Fire Prevention contest.

Other activities included a closed circuit television program originating from various Laboratory buildings. Hollis Mitchell, Sandia Base Fire Inspector, discussed fire prevention activities with employees during the telecast interviews.

Recapping the message of Fire Prevention Week, R. W. Hunnicutt, Division 4544 supervisor, said, "You can prevent fires through good planning, good housekeeping, and safe habits. Fire is a constant hazard. Fire Prevention Week emphasizes this fact, but to be effective, fire prevention must be practiced by all employees all year long."

Computing Machinery Association Chapter Hears Sandia Talks

A number of Sandians participated in the fall meeting of the Greater Rio Grande Chapter, Association for Computing Machinery, held Sept. 23-24, in El Paso, Tex.

J. L. Tischhauser, manager of Programming Department 9420, was program chairman and introduced the speakers. During the business part of the meeting he was elected chairman of the chapter.

D. D. Isett (7245) and C. J. Fisk (9424) showed a movie and explained the new computer technique called Automated Circuit Card Etching Layout (ACCEL).

A. L. Roark (5261) presented a technical paper, "Invariant Imbedding As a Numerical Tool."

"Multivariate Progression Analysis Computer" was discussed by M. D. Fimple (9424).

P. H. Arnold (9424) gave a paper entitled "Disc Chain System."

Co-authors G. R. Case and Gail V. Barton (both 5612) contributed two technical papers to the meeting—"Computer Analysis of AC Steady State Circuits," and "Computer Design and Analysis for the DC Conditions in Electronic Circuits."

Sandia Speakers

E. R. Dunaway (1114), "Strain Measurement of Low Modulus Materials," Fall meeting of the Western Regional Strain Gage Committee, Sept. 20-21, Los Angeles.

D. M. Mattox (1123), "Ion Plating—Film Structure and Interface Formation," American Vacuum Society Meeting, Sept. 27-Oct. 1, New York City.

L. S. Nelson (5234), "Explosions of Burning Metal Droplets," Bell Telephone Laboratory Research Seminar, Sept. 17, Murray Hill, N.J.

C. B. Pierce (5155), "Ionized F-Aggregate Centers in NaCl," International Symposium on Color Centers in the Alkali Halides, Oct. 11-13, Urbana, Ill.

J. C. Bushnell (5211), "Electron-Nuclear Double Resonance of Z₁-Centers in KCl," International Symposium on Color Centers in the Alkali Halides, Oct. 11-13, Urbana, Ill.

A. E. Jones (3415), "Sharing Communications Networks," joint meeting of the Bibliographical Center for Research and the Pacific Bibliographic Center, Sept. 1, Denver, Colo.

Albert Narath (5150), "Nuclear Spin Relaxation and Knight Shifts in Paramagnetic Transition Metals," LASL seminar, Sept. 30, Los Alamos, N. Mex.

J. J. Deely (5263), "On the Properties of Subset Selection Procedures (Bayesian and Non-Bayesian)," annual meeting of the American Statistical Association and the Institute of Mathematical Statistics, Sept. 7-11, Philadelphia, Pa.

B. M. Butcher and D. E. Munson (both 1115), "The Influence of Mechanical Properties on Wave Propagation in Elastic-Plastic Materials," Fourth Detonation Symposium, U. S. Naval Ordnance Laboratory, Oct. 12-15, Silver Spring, Md.

W. J. Halpin and R. A. Graham (both 5133), "Shock Wave Compression of Plexiglas from 3 to 20 Kilobars," Fourth Detonation Symposium, U. S. Naval Ordnance Laboratory, Oct. 12-15, Silver Spring, Md.

G. R. Case (5612), "Net-1 Users Group," Net-1 Users Conference, Sept. 27-28, El Paso, Texas.

C. H. Purdue (2442), "Using the Net-1 Program," "A Net-1 Model Contract," and "Future Plans for Increasing the Versatility of Net-1," Net-1 Users Conference, Sept. 27-28, El Paso, Texas.

Deaths . . .



Douglas B. Kennedy, supervisor of Design Definition Division C, 2213, died Sept. 17, after being hospitalized for the past two months. He was 64. Mr. Kennedy had been at Sandia for 17 years.

He was a native of Glasgow, Scotland.

Survivors include his widow and his brother, Wallace, also of Albuquerque.



Nora C. O'Neill, secretary to Vice President 4000, since Dec. 1, 1956, died suddenly Oct. 2. She had been employed at Sandia since April 1950. She was 48.

Miss O'Neill had returned recently from a visit with relatives in Ireland. Survivors include her mother in Ireland; seven brothers—Pat in Albuquerque, two in England, one in Canada, and three in Ireland; and three sisters—one in Canada and two in Ireland.

Sympathy

To Flaviano Saavedra (4622) for the death of his father on Sept. 29.



CLANDESTINE MEANS of obtaining information for espionage purposes was discussed recently at meetings of Sandia's technical staff by Security Standards Division 3243. Small unobtrusive transmitters, receivers, and recorders, such as the wrist watch microphone and pocket recorder held by C. E. Jordan (3243), were shown.



Football Coach At Sandia Lab Has Winning Ways

For the past three years Sandia Laboratory's All-Star flag football team has won the intra-base championship. Each year Don Lundergan has coached the team.

The All-Star's record is an impressive nine wins and one loss, and the Sandians piled up 232 points over the opposition in compiling this record.

Don, who is supervisor of Deformation of Materials Division 1115, has had a life-long interest in football. His father played guard for Notre Dame under the famed Knute Rockne.

While Don was at Notre Dame getting his Bachelor's in mechanical engineering and Master's in physics, he was on the track team. Afterwards he taught at Texas A&M and St. Louis University, and played volleyball, softball, and basketball on the faculty teams.

He has been at Sandia eight years, played halfback on championship Laboratory flag football teams in 1959, 1960, and 1961, and was an All-Star in 1961. He has coached the Sandia league championship 1100-4200-AEC team two years, and his present team, consisting of members of 1100-5000-AEC, has already won its first four games.

Of his coaching record, Don says, "We have a lot of good ex-college and high school football players. The men have the ability. It's a matter of putting them in the right spot at the right time and letting them play."

ALL-STAR flag football coach for the past three years has been Don Lundergan (1115), shown here with some championship members of the 1963 team and trophy.

SLOW PITCH CHAMPS—The 2500 team took the league with a 10 won, four lost record. The team downed AEC in the finals 11-9 for the league crown. In the first row are Winner Alexander (2562), Ray Jones (2543), Chuck Looney (2547), Jarvis Bumgarner (2533), and Jim McDowell (2564). Standing are Bobby Haynes (2543), Gene Styberski (2543), Paul Skabo (2547), and Dave Doleshal (2533). Not shown are team members Win Bergster (2564), Leo Klamerus (2541), Vern Arnold (2564), Frank Oswald (2564), Gene Long (2551), and Nancy Stuckey (2512), scorekeeper.



SLOW PITCH ALL-STARS from Sandia Laboratory came out second in the Inter-Base Tournament. The team beat Manzano and KAFB in the early games, but was edged out by Sandia Base 12-11 in the finals. In the first row are Jim Sanchez (4611), John Ayala (2232), Floyd Salas (2232), Ray Jones (2543), Pedro Santiago (4575), and Joe Saya (2122). Standing are Art McCarthy (9232), Larry Wilhelm (9411), Tony Satroplus (4234), Winner Alexander (2562), Bruce Nevin (7333), Ted Garcia (2232), Dave Doleshal (2533), and Duane Branscombe (2422).

Sports Roundup



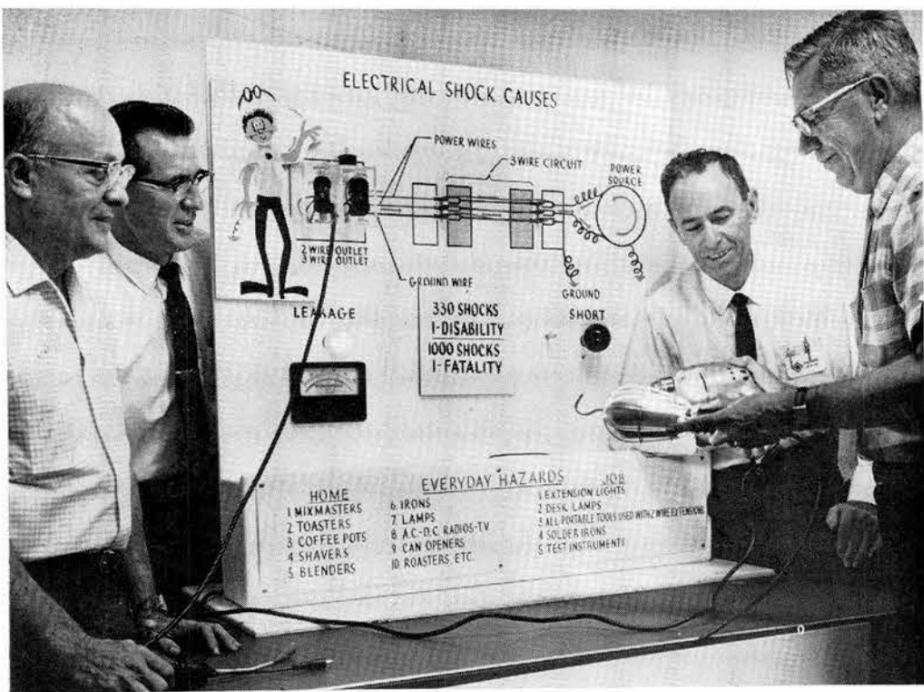
CHAMPIONS of Sandia Laboratory's fast pitch softball league are members of the 2100-4100-4600-9400 team. The group downed 1300-1400 in the finals 6-1 and finished the season with a 12-won, 6-lost record. In the front row are, from left, Tony Garcia (4623), Claude Glass (Stromberg-Carlson), Bob Jaramillo (9411), Joe Montoya (9411), and Lewis Sisneros (4135). In the second row are Frank Lucero (9413), Dick Bleyenber (2133), Joe Costales (4153), Ron Hanson (2134), Bob Balthaser (2131), and Ron Bump (2134), manager. Not shown is team member Bob Bailey (2112).



WINNERS of the Organization 3200 golf tournament receive trophies from D. S. Tarbox (center), 3200 Director. Dave Winner (3241), left, and Jack Rich (3242), right, teamed to take top honors. Gene Moser (3241) was director for the tourney played Sept. 25.



FAST PITCH ALL-STARS participated in the Inter-Base Tournament. The team downed Manzano Base 4-1 in the first game but went under to Sandia Base 11-3 and KAFB 4-3 in the remainder of the tournament. In the first row are Charles McCarty (1433), Larry Ferree (3151), Bob Balthaser (2131), Jim Hay (4252), and Dick Bleyenber (2133). Standing are Bob Dosch (1121), Carl Lingerot (1414), Carl Cron (1122), Roy Hanson (2134), Bob Jones (2213), and Denny Mangan (1413). Not shown are team members Ken Bauhs (7334), Herb Filusch (7256), Jerry Smith (7252), John Otts (7324), and Paul Beeson (5221).



SPECIAL DISPLAY PANEL was used in a series of safety lectures presented to Organization 4500 personnel by (from left) C. J. Lucci (4513), J. J. Ransom (4516), H. W. Clay (4573), and W. C. Elskes (4511), designer of the panel. Small appliances were used in connection with the display panel to demonstrate hazards of electrical shock.

Hazards of Electrical Shock Shown In Organization 4500 Safety Series

A series of demonstrations recently by the Organization 4500 Safety Committee used everything, including the kitchen sink. Viewers got a big bang out of it, too. At the key phrase, "a split second from disaster," a flash bulb went off and a small exploding cap provided the sound effects.

Subject under discussion was electrical shock. It was explored through the use of an attractive display panel which illustrated the hazards of using defective electrical appliances. Designed by W. C. Elskes, supervisor of Plant Systems Division 4511, the panel showed the difference between two-wire and three-wire electrical outlet systems and the importance of using a ground wire outlet for such appliances as electric drills and other portable hand tools. Several small appliances were used in the demonstrations including a coffee pot, an electric razor, a desk lamp, a drill, and an electric typewriter.

Interchangeable cartoon figures were attached to the panel to demonstrate injuries to various parts of the body. As Mr. Elskes held the coffee pot, for instance, and touched the metal faucets of the kitchen sink, he completed an electrical circuit. Current traveled from the hand holding the coffee pot, up his arm, through his chest, and down the other arm and hand which was touching the faucet. A bulb in

the cartoon character's chest lit up to indicate injury to the heart. (The demonstration circuitry was designed so that Mr. Elskes was under no danger at any time, but the points could still be effectively presented.)

Assisting Mr. Elskes in the series of lectures were C. J. Lucci (4513), J. J. Ransom (4516), and H. W. Clay (4573). Eight meetings were held with members of Plant Maintenance Department 4510 and Transportation and Services Department 4570 attending. Robert Findlay (4570) is chairman of the 4500 safety committee.

The lectures stressed the following points:

Ordinary house current of 110 volts can be lethal.

Check all appliances for frayed cords. Keep them in good repair at all times.

Do not handle electrical appliances while standing on wet floors, damp earth, wet concrete, metal floors, or while on metal ladders.

Never use a three-wire appliance on a two-wire circuit.

When working with an extension lamp in a basement or attic, make sure that the cord does not cross a metal pipe.

Don't take a portable radio or an electric hairdryer into the bathroom.

Don't use a toaster, radio, or electric coffee maker within arm's reach of the kitchen sink.

If you receive a tingling sensation when using or touching any electrical appliance, this is a warning that the insulation is failing. Have it checked and repaired by an electrician immediately.

After the talk, a movie, "A Split Second From Disaster," re-emphasized possible hazards when using electrical appliances.

K. B. Stiver (4513) painted the display board, J. E. Tilley (4511) did the special wiring, V. B. Atkins (4511) produced the sound effects equipment and the plumbing, and Armstead Arrington (4513) did the carpentry.

Promotions

Cobalyn K. McGregor (8233) to Staff Member-Administrative
 Donald J. Burns (1321) to Staff Assistant-Technical
 Irmal R. Brown (8116) to Staff Assistant-Administrative
 Jerry A. Wackerly (8243) to Staff Assistant-Administrative
 Adan Trujillo (4622) to Receiving Clerk
 Kyle B. Williams (4251) to Machinist
 Bobby A. Roane (4251) to Technician
 Rudolph D. Lewis (4233) to Apprentice Electronic Technician
 George W. West (8222) to Helper (Trades)
 Shirley F. Brint (3126) to Secretary Steno
 Kathryn W. Uren (3126) to Secretary Steno
 Donna Jo Van Gundy (3126) to Secretary Steno
 Mildred S. Hill (3421) to Library Assistant
 Helen L. Phillips (3126) to Record Clerk
 M. Angelina Silva (4545) to Record Clerk
 Rhoda R. Bockelman (9412) to Keypunch Operator
 Lois I. Mathes (3428) to Camera Operator
 Leslie E. Evans (2234) to Service Clerk
 Margaret A. Rico (2234) to Service Clerk
 Veloy A. Elder (3411) to Service Clerk
 Evelyn A. Buchanan (3428) to Document Clerk
 Barbara R. Shaw (3126) to Record Clerk
 Virginia R. Travis (2112) to Record Clerk
 Nancy Jo Funderburg (7216) to Data Reduction Clerk
 Louis C. Nogales (2232) to Micro-Reproduction Center
 Larry J. Kohl (9411) to Tabulating Equipment Operator
 Jill R. Hackard (2234) to Service Clerk
 Mary E. Fisher (2234) to Control Clerk
 Mary V. Simpson (4135) to Accounting Clerk
 Raye C. Knoff (2234) to Senior Clerk
 John J. Tootle (8245) to Metal Stock Handler and Cutter
 Herman D. Du Bois (8245) to Utility Operator
 James M. Austin (8245) to Utility Operator
 James C. Reitz (8232) to Reproduction Service Clerk
 Gayl R. Tschritter (8120) to Secretary
 Jack P. Pons, Jr. (8232) to Mail Clerk
 Richard A. Yung (8122) to Technical Assistant
 Lewis R. Blackman (2215) to Draftsman
 Anita V. Smith (5210) to Secretary
 Betty J. Worley (6000) to Secretary Assistant
 Terry E. Demares (7325) to Lab Assistant
 L. Jim Connally (7325) to Lab Assistant
 Richard W. Eifert (2411) to Staff Assistant-Technical

Congratulations

Mr. and Mrs. Herbert L. Webster (2411), a daughter, Nancy Ann, Sept. 9.
 Mr. and Mrs. Thomas R. Fewell (2411), a daughter, Jennifer Lynn, Sept. 8.
 Mr. and Mrs. Robert C. Colgan (3432), a daughter, Kemerlee Kathleen, Sept. 28.
 Mr. and Mrs. Stan Brooks (3241), a daughter, Nyla Dee, Sept. 28.
 Mr. and Mrs. J. R. Hanna (3455/7200), a son, Joseph Brian, Sept. 23.
 Dr. and Mrs. S. P. Bliss (3300), a son, Matthew Scott, Sept. 27.
 Mr. and Mrs. C. L. Mavis (2412), a daughter, Julie Marie, Sept. 26.

Welcome Newcomers

Sept. 15-Oct. 1

Albuquerque	
*Diane J. Cleveland	3126
*Lorraine E. Cook	3126
*Betty C. Cordova	4135
*Donald R. Fisher	3134
Dennis M. Gutierrez	3415
*Mary E. Hurst	3428
Melody K. Laffoon	3126
Barbara L. Luftus	3151
Sharon A. Mackel	4613
*Shirley McCall	3126
Richard L. Padilla	3415
Ray G. Pino	4574
Rennee Rudisill	3153
Illinois	
Donald F. Davis, Chicago	9233
Indiana	
*Farrell J. Perdreauxville, West Lafayette	1541
New Mexico	
John M. Moore, Alamogordo	9212
New York	
James B. Moreno, Johnstown	9326
Phillip B. Thacher, Ithaca	5132
Ohio	
David E. Coy, Dayton	5621
Oregon	
George E. Barr, Corvallis	5251
Pennsylvania	
Clarence P. Skillern, Pittsburgh	3311
Texas	
Kenneth J. Jones, Amarillo	1311
*Denotes rehired	

PAGE SIX

LAB NEWS

OCTOBER 8, 1965

Sandia Authors

Ruth E. Whan (5211), "Investigations of Oxygen-Defect Interactions between 25 and 700 Degrees K in Irradiated Germanium," Oct. 18 issue, PHYSICAL REVIEW.

R. R. Prairie, W. J. Zimmer (both 1443), and A. M. Breipohl (former Sandian), "A Case for Bayesian Statistics in Reliability Evaluation," October issue, IEEE TRANSACTIONS ON RELIABILITY AND QUALITY CONTROL.

W. J. O'Sullivan and J. E. Schirber (both 5151), "De Haas-van Alphen Measurements in Zn under Hydrostatic Pressure," Sept. 1 issue, PHYSICS LETTERS.

L. S. Nelson (5234), "The Nature of the Spearpoints Observed during the Combustion of Zirconium Droplets," Aug. 14 issue (No. 207), NATURE (published in England).

W. C. Myre, F. E. Thompson, and W. B. Goldrick (all 9231), "A Modular System of Logic for the Vela Satellite Program," special issue in December, IEEE PROCEEDINGS ON NUCLEAR TEST DETECTION.

H. M. Dumas (9233), "An Unattended Seismological Observatory," special geophysical issue, IEEE PROCEEDINGS.

L. P. Theard (5213), "Effects of Additives on the Radiolysis of Cyclohexane Vapor at 100 Degrees C," October issue, JOURNAL OF PHYSICAL CHEMISTRY.

R. T. Meyer (5122), "Time Resolved Mass Spectrometry with the Bendix TOF Mass Spectrometer," Proceedings of the 13th annual Conference on Mass Spectrometry and Allied Topics.

G. J. Simmons (5612), "Some Results Pertaining to Fermat's Conjecture," November issue, MATHEMATICS MONTHLY.

J. P. Burger (1121), "Polymer Molecular Weight Determination by High Temperature Vapor Pressure Osmometry," Vol. 63, Page 687g, AEC CHEMICAL ABSTRACTS.

B. L. Gregory (5212) and F. M. Smits (former Sandian), "A Comparison of Radiation Tolerance of Field Effect and Bipolar Transistors," May issue, IEEE TRANSACTIONS ON ELECTRON DEVICES.

E. D. Jones (5151), "Susceptibility Hysteresis and Hyperfine Interactions in MnSe," Aug. 15 issue, PHYSICS LETTERS; "Mn⁵⁵ Zero-field NMR in the Antiferromagnet MnSe," October issue, PHYSICS LETTERS; with M. L. Lines (Bell Telephone Laboratories), "Antiferromagnetism in the Face Centered Cubic Lattice: Part II, Manganeseoxide,"

Aug. 26 issue, PHYSICAL REVIEW; with K. B. Jefferts (Bell Telephone Laboratories), "UHF NMR Spectrometer," August issue, REVIEW OF SCIENTIFIC INSTRUMENTS; with M. L. Lines (BTL), "Antiferromagnetism in the Face Centered Cubic Lattice: Part III, Alpha-MNS," forthcoming issue, PHYSICAL REVIEW.

R. S. Satterwhite, C. D. Taylor, and C. W. Harrison, Jr. (all 1425), "The Response of a Terminated Two-Wire Transmission Line Excited by a Non-Uniform Electromagnetic Field," November issue, IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION.

J. A. Corll (5132) and W. E. Warren (5251), "Theoretical Approach to Enhanced Pressure Apparatus Design," November issue, JOURNAL OF APPLIED PHYSICS.

R. A. Graham, O. E. Jones, and J. R. Holland (all 5133), "Shock Wave Compression of Germanium from 20-140 Kbar," November issue, JOURNAL OF APPLIED PHYSICS.

R. I. Ewing (5241), "Electron Emission from Tungsten under Proton Bombardment," Sept. 13 issue, PHYSICAL REVIEW.

G. L. Eggert (1123), "The Effect of Low-Energy Neutron Irradiation on Age-Hardening in the Alloy Cu-Be," September issue, TRANSACTIONS OF THE METALLURGICAL SOCIETY OF AIME.

F. J. Conrad and B. T. Kenna (1121), "Rapid Spectrophotometric Analysis of Gold in Gold Plating Baths," December issue, PLATING.

L. F. Shampine (5262), "Some L₂ Markoff Inequalities," Oct.-Dec. issue, JOURNAL OF RESEARCH of the National Bureau of Standards.

E. A. Igel (7224), "Design Calculations for Rotating-Mirror Cameras," September issue, APPLIED OPTICS.

A. L. Roark (5251) and L. F. Shampine (5256), "On a Paper of Roark and Wing," forthcoming issue, NUMERISCHE MATHEMATIK (a German publication).

G. W. Arnold (5211), "Defect Structure of Crystalline Quartz: II. Variation of Displacement Threshold Energy With Crystal Growth Rate," Oct. 4 issue, PHYSICAL REVIEW.

Old Cameras, Fast Cameras On Display at Library

An exhibit on photography is currently in the display case at the entrance to the Technical Library, Bldg. 804.

In addition to related periodicals and books available at the library, the display includes various types of cameras: pinhole camera, box camera, bellows camera, miniature 35mm, reflex, press camera, Polaroid-Land camera, studio motion picture camera, and an ultra-high-speed camera used in hypervelocity impact studies. The cameras are on loan from Divisions 3465 and 7226, Barbara Ruminiski (3400), and Keith Weir (3460).

The exhibit was arranged by John Gardner (3421) and will remain on display until Oct. 15.



NEW OFFICERS—Sandia Toastmasters Club 765 recently elected new officers. From left are Bob Summers (2443), president; Jim Edgington (2542), executive vice president; Bill Emrick (2444), educational vice president; and Glen Whiting (5611), secretary.

Service Awards

15 Years



M. Aguilar, Jr. 4624
Luciano Archuleta 3242
H. M. Austin 4511



L. H. Baker 4234
R. J. Beyatte 7267
J. E. Birchfiel 6021
S. D. Brooks 4573
A. L. Brown 2122
G. A. Cobb 7226
G. A. Coburn 3451



B. M. Cordova 4573
G. L. Dourte 4233
J. M. Foster 7523
J. T. Gammon 3242
F. B. Grey 4224
Leroy Henderson 4513
C. F. Hiner 2524



Julian Jaramillo 4514
J. B. Jordan 2533
R. A. Kelley 3242
C. R. King 3242
R. G. Lucero 4518
W. C. McKinley 9411
Ramon Metzgar 4575



R. E. Moery 4511
E. C. Montano 4614
Edward Paul 2554
D. L. Peckumm 4513
E. C. Peterson 3220
J. M. Ralls 2121
Billie Rogers 4511



J. H. Tenbrink 1524
E. P. Trujillo 4234
Fermin Vallejos 4573
L. O. Wicke 4211
G. D. Wright 4213
K. H. Zimmerman 2131

PUPPET PLAYHOUSE



MAGICIAN DICK JENNINGS (4121) and his family will give a magic and puppet show Oct. 15 at a dinner and bazaar sponsored by the First United Presbyterian Church. The event is part of a fund drive for Presbyterian Hospital. From left are Ginny, Dick, Sheryl, Phyllis, and Glenna.

Dick Jennings Family Will Give Magic, Puppet Show for Hospital

Consuming interests of the Jennings family are magic and puppets. Dick (4121) is the magician, his wife Phyllis makes the hand puppets, and his three daughters—Sheryl, 9, Ginny 7, and Glenna, 6—are star performers.

The family will present several performances at the First United Presbyterian Church Oct. 15 as part of the dinner and bazaar to raise funds for the Presbyterian Hospital. Dick will perform a magic act and assist in the puppet production of "Snow White and the Seven Dwarfs."

The show is complete with a "Puppet Playhouse" stage, taped sound effects, and

the magic mirror on the wall. Performances will start about 6:30 p.m.

Dick has been a magic hobbyist for about five years. He performs periodically for various groups and entertains at private parties. The family got into the act last year when a similar fund-raising event was held at the church for the Presbyterian Hospital.

"We gave five performances," Dick says. "The little girls are real troupers now. We have more fun than the audience."

Service Awards — 10 Years

Oct. 8-21

T. M. Oppelt 2212, H. R. Johnson 4512, E. A. Romine 8215, A. V. Peterson 8222, J. P. Callahan 2551, Alex Padilla 7335, Betty M. Brake 1541, J. T. Stanfill, Jr. 3462, H. B. Williams 4212, C. B. Randall 4614.

PAGE SEVEN

LAB NEWS

OCTOBER 8, 1965

SHOPPING CENTER

CLASSIFIED ADVERTISING
Deadline: Friday noon prior to week of publication unless changed by holiday.
A maximum of 125 ads will be accepted for each issue.

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
8. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

FOR SALE

- 2 BLOCKS FROM BASE, brick 3-bdr., 1 1/4 baths, hw/floors, AC, attached garage, \$15,900, FHA value \$16,500. Schatz, 299-4585.
- REGISTERED miniature silver female poodle, 8 wks. old. Rodriguez, 265-6100.
- '65 YAMAHA motorcycle, \$550; Rickinbacker electric guitar w/amplifier, \$125. Mobley, 255-0253, 2924 Menaul NE.
- 30-30 WINCHESTER Model 94 w/plastic case, \$65 or trade for Marlin side eject model in new condition. Kerley, 299-0281.
- T-COUPÉ BODY, Ford chrome wheels, '55 Chev. 4-dr.; 2-piece sofa; Wicher table; screen door. Tarbell, 256-1322.
- '63 TRIUMPH TR4, convertible, roll-up windows, electric OD, R&H, tonneau cover, luggage rack, four speed synchronized, front disk brakes, never raced, \$1,600. Magnuson, 255-3921.
- USED SKI JACKET, Bogner ski pants, girl's size 10; ski boots, sizes 3 and 8 1/2; 72" wood skis and poles. Stewart, 298-0439.
- PICKUP, '60 Ford 1/2-ton, wide box, 6-ply tires, \$595; 8mm movie outfit, \$245. Bauder, 299-7322.
- LESLIE ORGAN SPEAKER, big organ sound from your spinet organ w/this 2-channel 50-watt amplifier and 4-speaker system. Bircher, 268-0726.
- RAMBLER 6 station wagon, new battery, \$75. Mason, 12221 Pintridge NE, 299-2836.
- '62 GMC half ton pickup, V-6, 4-speed hydraulic, R&H, 6-ply tires, below NADA Book. Millsap, 298-0678.
- '58 INTERNATIONAL CARRYALL, 4-speed, 2-speed rear axle, 4wd, mud grip tires, \$995. Zimmerman, 255-3183 after 5.
- BRICK 3-bdr. and den, finished yard, near Mark Twain School, Winrock, Coronado, Martin, 256-3384.
- '59 ENGLISH FORD Anglia, R&H, 4-cylinder, \$225 or trade for pickup. Monson, 298-7969.
- ASSORTED CHILDREN'S WEAR: new, mostly girl's dresses and socks, boy's suits and slacks, all at less than half original price. Daniel, 268-8335, 3415 Aspen NE.
- '60 VALIANT 9-passenger station wagon, one owner, \$600 or trade for pickup. Hart, 299-0669.
- 3-BDR., 1 1/4 baths, fireplace, dishwasher, disposal, water softener, hw/floors, drapes, hall storage, garage w/storage rm., patios, wall'd, landscaped, 914 Adams NE. Wear, 265-1157.
- RIFLE, Winchester model 30-30 cal., \$50. Miller, 298-1037 after 5.
- '52 OLDSMOBILE convertible, new top, new seat covers, R&H. Corn, 299-0601.
- 3-BDR., 1 1/4 baths, AC, drapes, walled yard, garage, hw/floors, landscaped, storage, near schools, CFA, under appraisal. Cramond, 298-2660.
- EARLY AMERICAN Mammy bench, \$19; Coleman 2-burner stove; 11-in. heavy-duty tricycle, \$6. Schwarz, 256-0416.
- ELECTRIC GUITAR, 2 pickup w/case and amplifier, 2 channel w/Tremolo, \$125. Robie, 255-9063.
- 14' LIDO GLASPAR BOAT w/Johnson 35hp electric start motor and tilt trailer, extras, \$950. Woodall, 298-4658.
- 2-BDR. HOUSE, block fenced yard, landscaped, carpeted LR and den, double fireplace, near schools and bus, 3718 Miller Circle NW. Gallegos, 242-1544.
- '52 BUICK Super, 8-cylinder, new auto. transmission, R&H, as is \$95. Drake, 299-0544.
- BOY'S homemade go-cart, 4-cycle engine, \$18. Parks, 268-0875.
- RESIDENTIAL LOT, ideal for split level, located in NE, Sunningdale area. Garcia, 256-6609.
- 2 HAMSTERS, 2 cages, food and bedding. Lenz, 298-3872.
- .22 CAL. REVOLVER, I. J. Mdl 55, 9-shot dbl. action, 5 1/2" Bbl., \$15. Savitser, 298-1430.
- FIVE SIAMESE KITTENS, good markings but father unknown, 25 cents/ea. Hawes, 255-5155.
- FREE KITTENS, six wks. old, ready to take home. Lynes, 268-0144.
- '62 AUSTIN HEALY SPRITE, \$985, small down payment. Rogers, 898-2364.
- APT. SIZE Norge refrigerator, \$80. Liguori, 256-3613.
- '60 RAMBLER station wagon, ST, w/OD, new custom seat covers, one owner, new battery, make offer. Ter Haar, 298-5386.
- 6.5 MM JAP RIFLE, scope and hand-loading tools; HRO-5 receiver. Muchow, 299-1813.
- 9x12 CABIN TENT w/sewn floor, zippered mosquito and storm door, never used, \$50. Navratil, 299-3355.
- '60 THUNDERBIRD, white w/red interior, PB, PS, air, R&H, AT, best offer over \$900. Cahill, 264-2389 after 5.
- FLUTE, cost \$150, will sell for \$75. Wickham, 255-4410.
- TWO PAIR BROWN high heels, size 9AA and 9 1/2 AA, cost \$56, worn twice, sell \$8 ea. Tiefert, 299-2763.
- HEATHKIT POWER SUPPLY, \$6. Giddings, 298-6221.
- GIRL'S BICYCLE, 26" w/basket and speedometer, \$16; auto top carrier w/cover, \$8. Green, 299-0094.
- 22" ROTARY MOWER w/3hp B&S impulse start engine, fingertip height adjustment, \$20. Halasz, 299-0307.
- 4'x7' POOL TABLE w/cues and cue and ball wall rack, \$40. Gorney, 299-8901.
- PILOT 35 Watt FM-AM receiver Garrard type A Shure stereo cartridge, AR2 speaker w/electrostatic tweeter, \$150. Roth, 242-4636.
- PHONOGRAPH, Voice of Music portable, monaural, 3-speed changer, diamond stylus, \$25. Snodgrass, 268-8820.
- TRICYCLE, sturdily built, for three to six year old child, \$4. Halliday, 256-6685.
- '60 FALCON RANCHERO, AT, radio, seat belts, padded dash, new tires and paint. Waldorf, 242-8303.
- SLIDE PROJECTOR, Zeiss Ikon 35mm w/two lenses and extra bulb, \$15. Taylor, 256-3221.
- SKI BOOTS, man's size 9E, Swiss-made Henke, double construction, \$15. Burns, 242-2407 evenings.
- MAPLE HEADBOARD for single bed w/brackets; baby carriage, \$10. Frauenglass, 345-0119.
- SKI EQUIPMENT: size 11 1/2 Henke ski boots, \$15; Cubco bindings, \$10. Cropp, 255-1869, 5-7 p.m.
- SELL OR TRADE '64 Datsun 4-wd patrol wagon. Silva, 344-6714.
- EMERSON 17" TV, \$10; Hardwick gas stove, 4-burner, lighted oven, broiler, \$15. Asselin, 299-9270.
- '59 PEUGOT 4-dr. sedan, w/two extra tires, \$350. Shunny, 265-1620.
- '63 BSA motorcycle 250cc, \$350, 3900 miles. Hayes, 636-2947.
- ELECTRIC TRAIN TRACK, \$12; 18" Craftsman reel mower; 15" hand mower; steel cabinet window, \$10. Finley, 2725 Los Arboles Pl. NE, 299-0739.
- 3-BDR., 1 1/4 baths, electric kitchen, garage, carpeting, walled yard, landscaped, near schools, take pickup w/camper for equity. Shaffer, 242-6573.
- ROLLAWAY BED w/innerspring mattress, \$10; boy's 26" bicycle, English tire, 3-speed, \$10; girl's 14" bicycle, \$5. Littrell, 256-3720.
- CARLISLE PLAZA, near schools, 3-bdr., 1 1/4 bath, laundry room, family room, carpet, cold war veteran \$200, trade-in considered, \$14,600. Stiefel, 344-7931.
- ROBERSON 3-bdr., family room w/fireplace, 1 1/4 bath, enclosed patio, 3609 Piermont NE. Wright, 299-8939.
- '56 FORD, 2-dr. station wagon, 2-tone brown, seat covers, 2 spares, needs valve repair, \$200 w/repairs, \$150 as is. McDowell, 344-9292.
- '59 CHEV. IMPALA, 4-dr. sedan, AT, AC, all power, \$695. Anderson, 268-4188.
- '64 VOLKSWAGEN sedan, 17,000 miles, will consider swap for travel trailer or pickup camper of equal value. Ross, 867-2415.
- ANTIQUE OAK SPOOL CABINETS, 5 and 6 drawers, \$35, have original stencils on sides and front. Smitha, 299-1096.
- METAL BUNK BEDS w/innerspring mattresses, \$30. Hiller, 299-7573.
- TWIN STROLLER w/double basket, \$20. Tapia, 299-3685.
- BASSETT, male, 1 yr. old, AKC registered, has all shots, excellent w/children. Bowen, 255-8195.
- WEAVER SCOPE Model 440; Wollensak Monocule 8x30; vacuum cleaner w/attach.; exhaust fan, new; Puritron electronic air purifier. Miller, 255-7894, evenings.
- CULLIGAN WATER SOFTENER, used 6 mos., 50% discount. Walter, Los Lunas, 865-9650.
- TWO LONG FORMALS: one pink chiffon and satin; one blue brocade taffeta, size 9. Urbanoski, 299-2319 after 5.
- CORRALES 3-bdr., den, beam ceilings, 3 fireplaces, 2800 sq. ft., separate complete attached apartment, corral, 1 acre, \$29,900. Swiss, 898-2083.
- '63 VW CAMPER, fully equipped, plus large luggage rack and split front seat, \$500 under book, low mileage. Lucero, 298-3656.
- WHITE TERRIERS, AKC; grade mare; roping saddle, \$60; custom saddle, \$150; 7 acres near Bosque Loop. Schooley, 112-636-2970.
- WINROCK AREA, 3-bdr., family room, 1 1/2 bath, carpet, drapes, built-in kitchen, intercom, sprinkler, \$16,500, 7423 Leah Dr. NE. Waggoner, 299-9014.

'61 KARMANN GHIA, turquoise, R&H, ww, \$1300. Wilhelm, 256-1053.

RECLINER, lt. beige plastic w/brown upholstered seat and back, \$30 or best offer. Kerstetter, 268-7405.

'59 MOTOROLA Stereo-Hi-Fi, automatic changer, separate mahogany cabinets, needs cartridge. Bartolucci, 256-6797.

AUTOMATIC WASHER, '61 Norge Dispensomat, needs repair, \$20. Love, 298-6484.

BOX SPRINGS, mattress, \$20; 20" 3-speed reversible fan, \$15; one-wheel trailer w/metal box, frame, cover, \$45. Nelson, 298-9290.

ACCORDION, light blue color, 120 base key. Sebrell 299-8791.

AQUARIUM, fish, everything, \$30; child's electric car, T-Bird, \$45; mattress, box springs, \$20; soft water conditioner, Ward's, \$65. Chandler, 10212 Chapala NE, 298-1114.

'62 CADILLAC Coupe de ville, 31,000 miles; Mouton fur coat; Revell HO-gauge model train. Martin, 298-2064.

YOUTH BED, \$25; free—four kittens. Rose, 298-6238.

KEROSENE TENT STOVE, \$3; baby play pen, \$3; stroller, \$4; 2 twin bed mattresses, \$5 total. Causey, 299-0089.

'55 PLYMOUTH, new battery, 2 new tires, \$150. Hendrix, 9900 Arvilla NE, 299-8872.

'55 PLYMOUTH station wagon, runs, \$65. Thornton, 299-5747.

TWO TWIN SIZE BEDS, light oak finish, wagon wheel design, will make bunk beds. Phelps, 344-0441 after 5.

FREE KITTENS, black and white, males and females Tatum, 877-0997.

10-GAL. Aquarium, full reflector, heater, filter, pump, fish, gravel, plants, \$25. Adams, 268-5943.

MINIATURE POODLES, male, silver or cream, AKC registered, 7716 Palo Duro NE. Hemen, 298-4962.

3-BDR., 1 1/4 bath, AC, cfa, nylon carpeting, custom drapes, built-in range/oven, landscaped, assume GI for \$2400, or make new FHA. Taylor, 344-8176, 4304 Hilton NE.

'60 FORD PICKUP 1/2-ton V-8, 4-spd., 38,000 miles, \$750; 5 16", 5-hole Ford wheels and tires, \$30; 22" wood lathe w/motor, 4' bed. Moore, 298-4517.

30-06 BARRELED ACTION Springfield 03A3; Pachmayr swing mount installed, milled trigger guard w/hinged floorplate, \$45. Foster, 268-1284.

COLEMAN cooler, \$8.95. Cultreri, 298-5252.

'55 CHEVROLET 4-dr. Belair, \$80. Windsor, 344-6557.

'57 OLDS 98 2-dr. w/all power and air. Schwarz, 268-2557.

FREE BABY KITTENS, 1 black, 1 grey, 1 striped, long-haired, 6 wks. old, housebroken, will deliver. Phillips, 247-1851.

BOX SPRINGS and mattress, \$30; 7:00x14 tire, new, \$10. Coalson, 298-8074.

'58 NOMAD Chevrolet station wagon, AT, PS, \$325. Jarrell, 636-2834.

14' ELGIN RUNABOUT, 40hp, tilt trailer, skis, vests, new batt., tank and all extras, \$650. Starkovich, 298-5847.

'56 CHEVROLET 9-passenger station wagon, V-8 engine, ST, OD, R&H, \$350. Andrews 256-7328.

'60 MGA "1600", new top and tires, will take best offer over \$900. Cron, 299-8701 after 5.

ELECTRIC RANGE, 40" deluxe model, \$50; drapes, make offer. Acton, 299-0593.

WANTED

JOIN CARPOOL vicinity Central and Washington NE to east end of Tech Area. Pecha, 256-0395.

SHARE RIDE from vicinity Menaul and Louisiana to Bldg. 880 or 892 parking lots. Devor, 298-9743.

12-VOLT car radio, under dash mounting. Bear, 298-2744.

BABY SITTING in my home, any age, any hour. Rudeseal, 529 Tennessee SE.

BABYSITTER for 6-yr. school boy from 3 p.m. to 12 midnight in my home, no housework, must have transportation. Whatley, 255-9379.

RIDE to Bldg. 802 from 2800 Bel Air Dr. NE, vicinity of Menaul and Carlisle. Miller, 255-7894 evenings.

12 CU. FT. REFRIGERATOR: skis, bindings, poles, boots, pants for children ages 7, 9, 11. Illing, 299-7378.

RIDE or join car pool, vicinity Juan Tabo and Lomas. Goshorn, 298-6548.

USED LUGGAGE RACK for VW sedan. Hanks, 299-2829.

FORM car pool w/1 or 2 other persons from Echo Ridge or Desert Terrace to Tech Area I, leave 7 a.m. Abel, 298-5139.

FOR RENT

FURNISHED 2-bdr. apartment, carpet, washer, near base, available Oct. 10, 819 Louisiana SE, \$90. Elliott, 256-7909.

2-BDR. APARTMENT, furnished or unfurnished, \$70 or \$90, special discount for lease, no pets, two or less children. Villella, 268-4731.

LOST AND FOUND

LOST—Dark safety glasses, bi-focal glasses, plaid therosm pint jug, brass coin w/"CNC" on one side, tri-focal safety glasses, pink #2 1/2 knitting needle, 10-yr. SC tie clasp. LOST AND FOUND, tel. 264-2757.

FOUND—St. Christopher/Blessed Virgin double medal, rosary, gold earring clip, prescription glasses, ladies sunlasses w/blue frames in brown case. LOST AND FOUND, tel. 264-2757.



HARVEST FORMAL BALL, at the Coronado Club Oct. 16, will feature dinner and dancing amid suitable fall decorations. Serving on the decorating committee are Mrs. Andy Carter (left) and Mrs. Peter Stirbis. (Andy is in Division 5613; Peter is in Division 1542.)

Coronado Skiers Will Meet Monday, Oct. 18

Coronado Ski Club members will discuss plans for the coming winter months during the group's first meeting of the 1965-66 season on Monday, Oct. 18, at 7:30 p.m. in the Eldorado Room.

Any skiers or prospective skiers who are interested in learning more about the club's activities are invited to attend the meeting.

The evening's program will include slides and a discussion of recent improvements by a representative of Sandia Peak ski area, as well as a demonstration of pre-ski conditioning exercises by the area's head instructor.

The club annually arranges a group trip to a New Mexico ski area and offers an extensive program of activities for junior skiers.

Coronado Ski Club officers are Doug Lacoss (1414), president; Paul Souder (7253), vice president; and Barbara Walstrom (7332), secretary.



DREAMING ABOUT snow-covered mountain slopes is Lupe Sanchez (2531), one of many prospective new members for the Coronado Ski Club, which will hold its first meeting of the season Oct. 18.

Other Club Activities

Social Hours

The Club's popular seafood buffet will be served tonight following social hour with the Dave Willis Combo providing background music. On Friday the 15th, the chicken buffet will be featured. The Elaine Harris Combo will play. These buffets are \$1.25 for adults; \$1 for children.

Football Buses

Charter buses to the five remaining University of New Mexico home football games will be available for Club members. The buses will leave the Coronado Club 45 minutes before game time and will return to the Club after the game. Club facilities will be available before and after the games. Season bus tickets are \$1.50 per person.

Teenage a Go Go

Here's a big event for the teenagers: Saturday, Oct. 23, a spaghetti buffet from 6:30 to 7:30 followed by dancing to the Morticians from 7-10—or watching the Go Go girls do the watusi, frug, jerk, etc. The price is geared to teenager allowances: 50 cents per person.

Sanado Club

Sanado Women's Club has arranged a luncheon for Tuesday, Oct. 12, at 1:30 p.m. The program will feature Bernadine Stowe of Dallas, Tex., a book reviewer whose presentation last year was very well received. This time she will review a current Broadway comedy hit, "Any Wednesday." The menu will feature Far Eastern dishes. Guests will be board members of the Sandia Base Women's Club. For reservations: Mrs. Harry Olson, 6501 Rogers NE, tel. 299-3615.

Eldorado Room Winning Name for Remodeled La Cana

"Eldorado Room" is the winning name for the recently remodeled La Cana room of the Coronado Club. Mrs. B. E. Hickerson (whose husband is supervisor of 3462-2) will receive four tickets to the forthcoming Harvest Formal Ball for her suggestion.

In explaining her choice of names, Mrs. Hickerson wrote "Eldorado is the Spanish name used for the 'Seven Cities of Gold' which Coronado was searching for when exploring the Southwest. The name is used metaphorically to describe any place where wealth could be rapidly acquired. Therefore, the 'Eldorado Room' could be used to imply the 'wealth of happiness' enjoyed at parties there."

Explosives Safety Engineering Meet Held at Sandia Lab Last Week

Some 50 representatives of Atomic Energy Commission agencies and contractors attended a three-day conference on explosives safety engineering at Sandia Laboratory last week. Aspects of handling, testing, and processing explosives materials were discussed and information was exchanged on safe methods of using conventional high explosives.

D. L. Rost, supervisor of Safety Engineering Division 3211, was conference chairman. Welcoming address was made by R. A. Bice, Sandia Vice President.

Other Sandians participating in the program and subjects discussed included: W. A. Gardner, Director of Systems Engineering 1500, "Safety Aspects in Weapon Design"; L. E. Lamkin, Director of Environmental Testing 7300, "Safety in

Environmental Testing"; W. B. Leslie of Advanced Development Division 1311, "Thoughts on Firing Site Safety"; M. T. Abegg of Advanced Development Division 1311, "Recommendations of the Detonator Task Force"; D. R. Parker of Environmental Health Division 3311, "Toxic Problems and Cures"; L. R. Myers of Environmental Test II Division 8112, "Livermore Laboratory Hazardous Test Facilities"; and L. M. Jercinovic, Manager of Safety Engineering Department 3210, "Static Electricity and Electric Field Gradient Hazards."

Last week's conference was the fourth in a series of semiannual meetings and the first held at Sandia. Through these meetings, advanced safety techniques are established for the handling of explosives and explosive devices.

Take Note . . .

C. J. McGarr, Director of Service Operations 4600, has been appointed to the Clerical Work Measurement Committee of the Administrative Management Society.

On Oct. 12-13 he will participate in a Purchasing Workshop at Dallas, Tex., and will discuss "Management Science in an Inventory Control System."

Nov. 3-4 Mr. McGarr will speak on "Inventory Management Control" at a Data Processing Association Conference, also in Dallas.

The TDP Wives Club will meet Monday, Oct. 18, at 7:15 p.m. in the Health Department Auditorium, 1111 Stanford NE. The Mark Keys, barbershop quartet, will provide a musical program. Mrs. Darlene Jelnick (husband Don works in 1122) is president of the TDP Wives group.

The 10th annual Corrales Casa Tour will be held Sunday from 10 a.m. to 4 p.m.

Corrales is located just north of Albuquerque on the west side of the Rio Grande. Five adobe houses in the area were chosen for their special flavor, flair, and interesting furnishings. Hostesses will be on hand to answer questions about the houses. Visitors will park their cars at the Sandoval school in the middle of the village, and will board buses for the tour. Upon completion of the tour, refreshments will be served.

The Casa Tour is to benefit the Corrales Community Library. For further information call tel. 898-2431 or 898-3638.

The American Institute of Industrial Engineers and the American Society for Quality Control will hold a joint meeting Oct. 19 at the Kirtland AFB Officers Club. Speaker will be Col. E. C. Yeager, Commander, Aerospace Research Pilots School, Edwards AFB, Calif. Dinner is at 7:15 p.m. with the technical meeting starting at 8:15.

Col. Yeager's topic will be "Quality and Supersonic Flight." He became the world's first supersonic pilot when he broke the sound barrier in the Bell XS-1 in 1947. In the following two years he made 40 supersonic flights, exceeded 1000 mph, and 70,000 feet altitude. In 1953, Col. Yeager flew the Bell X-1A at two-and-one-half times the speed of sound. He is now involved in the X-15 rocket plane test program.

For more information contact A. E. Kaping (AIEE), 264-4238, or B. W. Bell (ASQC), 264-5161.

Cal Wright (ACF), injured recently in a hunting accident in the Bosque area south of the city, was aided by two Sandians driving a late model blue car. The Sandians took the injured man and his son to a Belen hospital. Mr. Wright wishes to contact the Sandians and express his gratitude. Their names are unknown to him. He can be contacted at 268-1248.

PAGE EIGHT

LAB NEWS

OCTOBER 8, 1965

Sandia's Safety Scoreboard

Sandia Laboratory:

15 DAYS
525,000 MAN HOURS
WITHOUT A
DISABLING INJURY

Livermore Laboratory:

113 DAYS
563,600 MAN HOURS
WITHOUT A
DISABLING INJURY



Adana Echer (3126-4)

Take A Memo, Please

Safety equipment can't do the job alone. A safety awareness and quick thinking combined with suitable safety equipment can help to prevent job-incurred injuries.