

Pictures on Pages 4 and 5

Livermore Branch to Become Sandia's Largest Satellite

Sandia Corporation's new assignment, providing ordnance engineering support on a greatly expanded scale for the University of California Radiation Laboratory (UCRL) at Livermore, Calif., will result in the westward migration of some Sandians in the months to come and the hiring of a number of new employees from the Bay area.

In time the Livermore operation will become Sandia Corporation's largest satellite activity, far surpassing the next largest "site" operation, Salton Sea Test Base in southern California, where about 100 Sandians are employed. The following report on Livermore is of interest to all Sandians because the activities there will be typical of many operations here at "home base."



Dr. H. F. York
UCRL Director,
Livermore site

Weather at Livermore

Livermore is situated midway between the coast and the San Joaquin Valley and the town is entirely surrounded by hills. The result is a moderate temperature and almost complete freedom from fog. The average minimum temperature is 39.57 degrees and the average maximum temperature is 87.34. The absence of fog, abundance of sunshine and an altitude of 476 feet produce a dry even climate with warm days and cool nights the year around.

Health Area

This temperate climate is so healthful that numerous hospitals and sanitariums have been located in the area. The Veterans Administration and Alameda County, as well as

Women's League Will Take Registrations at Dormitory Next Week

As a convenience to those who work and live on Sandia Base, including all Corporation personnel, the League of Women Voters will set up a table in the lobby of the Women's Dormitory, just south of the Coronado Club next week to take registrations for those who wish to vote in the forthcoming Primary and General elections.

The desk will be staffed from 11:30 a.m. to 1:30 p.m., Monday through Friday. Voters must register before April 8 to be eligible to vote in the Primary, May 8. The League will take changes of registration from one precinct to another, as well as new registrations, but changes in party preference must be made at the County Clerk's Office.

Those who voted in the last general election need not register unless they have changed precincts. Everyone living in the AEC housing area is eligible to vote if they meet length of residence requirements but those living in the Military and Wherry Housing areas are not eligible to vote.

New Mexico residence requirements for voting are: one year in the state, 90 days in the county, 30 days in the precinct.



LIVERMORE BRANCH department manager, W. J. Howard, right, is pictured here with Robert W. Henderson, Director of Systems Development. Mr. Howard, who is now located at Livermore, reports to Mr. Henderson.

private physicians, have built hospitals in the vicinity.

Agriculture Too

Agriculture is a big business of the area. Large cattle ranches of many thousand acres make the most of the green, grassy hills in the valley. Grapes flourish in the climate and there are many wineries producing white sauterne.

Sandia Organization

The Sandia staff operating the Livermore Branch is headed by W. J. "Jack" Howard, manager of Engineering Department 1250, who reports to R. W. Henderson, Director of Systems Development, 1200.

There are two project divisions under Mr. Howard. C. R. Barncord heads Division 1251, with section supervisors A. B. Miller and W. A. Little reporting to him.

R. L. Brin heads the other Project Division, 1252, and has two sections reporting to him. W. B. Marsh is supervisor of 1252-1 and Mr. Brin is acting as supervisor of the other section, 1252-2.

Mr. Howard is acting supervisor of the Service Division 1253, and reporting to him are R. L. Siglock, supervisor of Section 1253-1 and James McMinn, 1253-2.

Livermore Laboratory

The Livermore site is operated by

the University of California and the AEC contract is administered for the Commission by H. A. Fidler, Manager of the AEC's San Francisco Operations Office.

Dr. Herbert F. York is Director of the Livermore Laboratory.

Livermore History

For the historically minded here's the story of the town of Livermore. It was named for an English sailor, Robert Livermore, who abandoned his ship in San Francisco harbor in 1835 and went inland to live. His farm was the only establishment in the Livermore Valley until gold seekers started streaming through the area in 1848.

The railroad came through the area in 1869 and the settlement grew rapidly after that. Today there are about 11,000 people in Livermore.

Schools

Residents of Livermore are proud of their school systems. Both public and parochial schools with modern and attractive buildings house kindergarten, grade school and high school classes.

Weekend Trips

Those who are interested in weekend excursions will enjoy the Bay Area about 50 miles away. Yosemite National Park is a few hours drive to the east.

Sandia Scientist Tells DOD Group of Electron Tube Work at Corporation

Dr. J. H. Findlay, manager of the Electronic Component Development Department, 1450, described electron tube work at Sandia Corporation last week in New York to the Department of Defense's Advisory Group on Electron Tubes.

Dr. Findlay told that one of the functions of the Corporation's Electronic Component Development Department is to decide what types of tubes are needed in instruments and components, write performance specifications, help procure the tubes and then test development samples.



Dr. J. H. Findlay

He said that such tubes are used by the Corporation in fuzing and arming systems such as radar, power supplies and power conversion units, in test equipment and telemetering apparatus.

Dr. Findlay, who joined Sandia Corporation in December, 1953, received his PhD at Princeton University in 1930. He holds a B.S. and M.S. degree in physics from Queens University, Ontario, Canada.

Prior to coming here, he had been manager of Engineering for power and special purpose tubes at Westinghouse Electric Co. He is a member of the Institute of Radio Engineers, American Physical Society and the American Association for the Advancement of Science.

Dr. Findlay and his wife reside on Sandia Base.

★ F. J. Given Talks to AOA Members on Missile Problems

Fred J. Given, Vice-President of Research & Development Technical Services, will speak to the Albuquerque Post of the American Ordnance Association Apr. 5 at 7:30 p.m., in Room 122 of the Geology Bldg. at the University.

Mr. Given will review a speech he recently presented to the AOA in Washington. Various problems encountered in the missile program will be discussed.

Pedestrians Asked To Cross Streets At Intersections

Sandia Corporation employees at Sandia Base have been requested to observe pedestrian traffic signs on Main Street between G and H Streets directly west of Bldg. 800.

These signs, placed there by the Provost Marshal's office, instruct pedestrians to cross only at the intersections. Crossing between intersections is a violation of Base traffic regulations.

At the suggestion of the Corporation, the Provost Marshal has considered placing a crosswalk on Main Street immediately west of Bldg. 800 with a "Stop For Pedestrians" sign. However, this was felt to be impractical for the sign would not be in position during lunch hour and at quitting time when motor vehicle traffic is at its peak. At rush hours pedestrians must yield the right of way to facilitate flow of traffic. The Military Police feel that there would not be sufficient pedestrian traffic at that point to warrant such a sign during other hours.

During peak hours a military policeman is on duty directing traffic at the nearby intersection and if automobile traffic were interrupted by pedestrians a traffic jam would result. This would expose motorists and pedestrians to possible accidents.

AWS Meets

The American Welding Society meets tonight at 7:30 in the UNM Industrial Arts Building. Vince Nelson of American Car and Foundry will discuss Photo-Elastic Studies of Weld Design.

T. T. Robertson Named Supt. of Organization 7400

T. T. Robertson has been named Superintendent of Drafting and Specifications, 7400, reporting to F. J. Given, Vice-President Research & Development Technical Services.



T. T. Robertson
—superintendent 7400—

7000. The appointment was effective Mar. 16.

Drafting and Specifications superintendency was created Jan. 1, 1956, when F. J. Given was appointed Vice-President. Mr. Given has been heading the organization temporarily.

A native of Scotland and a naturalized U.S. citizen, Mr. Robertson received his advanced education at Heriot-Watt College in Edinburgh, Scotland.

Since 1936, Mr. Robertson has been with Bell Telephone Laboratories and prior to coming to Sandia was supervisor of Drafting in the Military Development Dept. Previous employment included positions with DeForest Radio, Sylvania Corp., Worthington Pump and Carrier Engineering Corp.

In February, 1950, he became a consultant to Sandia Corporation and in August of that year was named division supervisor in drafting. In September, 1951, he was appointed manager of the Engineering Services Department.

Mr. Robertson's successor as Manager of the Engineering Services Department, 1640, has not yet been announced.



CHIN FERN ASSORTMENT in the drafting room of Building 880 is being cultivated to celebrate Albuquerque's 250th Anniversary pageant in July. L to R are Lewis A. Caffo 7411-1, Phillip Park 7412-4, Merrill H. Merry 7412.



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Frances Ramsey, Don Graham, Assistant Editors
 Robert S. Gillespie, Editor



This Date in History . . .

It was 181 years ago today, Mar. 23, 1775, that Patrick Henry cried "Give me liberty or give me death." It might be a good day, today, to recall his stirring statement of that perilous time for the colonies. Two centuries later with free men withstanding pressures from forces intent on enslaving the world, that battle cry could well be taken up again.

Even in these days of uneasy peace we would do well to remember that we can lose the things we hold most dear—the things we live for—through apathy and complacency. Few, if any of the nations behind the Iron Curtain chose communism in preference to democracy. They simply allowed their freedom to be taken away from them bit by bit until the very will to resist was gone and surrender was the only course remaining.

The duties of citizenship are very rewarding, particularly the personal satisfaction that one has done his bit to keep democracy strong and free.



SWEET ADELIN SHOW Apr. 7 is the next engagement of the Lads of Enchantment. The program will begin at 8 p.m. in Albuquerque High School. Pictured L to R (front) are Carl Wright of Albuquerque, Gil Wallace 2553, (back) Dan Aycock 2224, Don Pitts 2552.

Visits With Romulo

T. B. "Tom" Tolman, 2333-1, a former resident of the Philippines, spoke with Gen. Carlos P. Romulo, Philippine ambassador to the United States, following an address by the General at a recent Rotary International luncheon at the Hilton Hotel.

Tom, who attended the luncheon with A. M. Granum, 2313, lived in the Philippines until 1945, when the ambassador, now also serving as head of his country's delegation to the United States, was embarking on his government career. Tom says they mostly discussed Romulo's return to the Philippines this September.

Buys Home

C. J. Baumgartner, Manager of Receiving and Reclamation Department, 2350, recently moved into his new home at 1714 Ross Place SE. The home was previously owned by W. J. "Jack" Howard, who has moved to Livermore, Calif., where he is Manager of the Sandia Branch at University of California Radiation Laboratory.

April Fools' Day

April Fool's Day is no laughing matter for 17 Sandians whose common birthdate falls on the day practical jokers shine.

Youngest of the lot is Janet I. Davis, 7225, who has tolerated pranksters' antics 20 years. Also in 7225 is G. E. McQuarie, and in 7224 is Henry L. Holmberg.

Others include Claude Baca 2234, August E. Binder, Jr. 1215, James E. Birchfiel 4153, Perm N. Dwyer 2112, Albert W. Fite 1233, Henry P. Kovaschetz 2711.

Dorothy J. Lauer 7222, Moses Loretto 2351, Mary M. Mackie 2400, George G. Martin 1250, Earl H. Simonson 4152, Alfred E. Stewart 2452, Howard E. Westgate 1613, Royal V. Winter 2723.

Accident Victims

Spike Coombe, 7225, who is Sandia Lab News reporter in the drafting room of 880, has been absent from work and was hospitalized briefly for injuries she received in an auto accident. In another mishap, Bruce Davis, four-year-old son of W. B. Davis, 4131-1, sustained cuts and bruises when struck by a car recently.

Building Blues

Gertrude Herring, 7225-5, reports that "Typing Service in Bldg. 834 continues to pound typewriters to the tune of a cement saw, jack hammer obligato with a pizzicato variation thrown in by way of paint sprays, drills, etc."

"The full ensemble comes when the workmen doing the remodeling walk noisily around the area with sheets of tin, hunks of plastic, two-by-fours. Personnel of the Typing Service," says Gertrude, "are waiting the finale, the likes of which were probably never even imagined by such as Richard Strauss, Stravinsky, Stan Kenton or Spike Jones."

Vinovich Bowls

Rudy Vinovich, 2220, helped his team mates in the City Bowling Tournament win the City Championship flying under the banner of "Converse Motors." Rudy placed ninth in the singles and third in the all events.

Earlier this month Rudy bowled in the Southwest Tournament in Dallas, Tex., ending up 13th in the doubles and 12th in the singles. He also competed in the Benny Brown Sweepstakes in Lubbock, Tex., plus the rich Fort Worth classic open, placing 17th in this event.

Congratulations

Wedding congratulations are extended to Aurora Gonzales, 2112-1, and Victor Gabaldon, 2541, who were married Mar. 6 in Bernalillo.

All Well Now

Org. 2100 welcomes Kendall Matthews back after several weeks of illness and hospitalization.

"The Lineup"

On a recent trip to San Francisco, Max Weber, 5122, and his wife had a somewhat harrowing encounter with the police department of that city.

They were strolling to a movie theater one evening when they were accosted by two policemen who "escorted" them to their patrol car and drove to a nearby grocery, the scene of a robbery moments before. The holdup had been staged by a man (wearing an overcoat similar to Max's) and a woman companion.

The Webers were released at once when the store's owners stated they were not the culprits.

Unicycle Fame

Tom Moffat, son of W. T. Moffat, 5240, is receiving national publicity for his unique way of delivering newspaper from atop a unicycle on Sandia Base. An article describing Tom's "balancing act" first appeared in the Albuquerque Tribune and has since been featured in This Week Magazine which is circulated with Sunday editions in cities throughout the country.



THE PRISM in Old Town is outlet for gift collection accumulated by Frank Viquesney, 7214.

'Too Many' Pieces of Glass Open Way For Sandian's New Old-Town Venture

"Constant prowling" in gift and curio shops yielded a many-faceted hobby for Sandian Frank Viquesney, who owns a rare collection of foreign and domestic crystal, glass and stoneware housed in a petite shop in Old Town called The Prism.

Good design, be it contemporary or traditional, is a must, says Frank, whose imports run the gamut from Portuguese stemware, German hurricane lamps to Japanese stainless steel. Other "good home accessories" are from Sweden, Italy, Finland,

Belgium, Holland, Mexico. In the glassware line are decanters, cordial sets, bottles, occasional dishes. Sturdier stock of stone includes trays, coffee sets, jugs, vases. There's also jewelry from desert glass.

Opening The Prism recently was an outgrowth of a "bulging house," says Frank, an administrative assistant in 7214. But it hasn't really solved his problem. Relinquishing part of his collection only makes room for other wares he's wanted for a long time.

April 7 Wedding

A shower was given Mar. 15 in honor of Cora Belle Wright, 2333-2, by Ruth Womack and Lola Longenbaugh, both also of 2333-2, at Lola's home, 7707 Don Dr. NE. Approximately 30 girls from 2300 attended.

Cora Belle will be married Apr. 7 to Airman I/C John Goff, who will be returning shortly from service in Casablanca. An afternoon garden wedding is planned at the home of her parents, Mr. and Mrs. Kermit Wright, 420 Richmond Dr. SE.

New Home

Leonard Hitchcock, 2721, and family have recently moved into their new home at 1042 Marcella NE.



Miss Wright

Word to the Wise

Recent words of wisdom by Betty Furry, 2132-1, may serve aspiring femmes fatales in good stead this year. Sandia Lab News readers may recall Betty's reply to an inquiring reporter query: "Should Women Really Do the Chasing during Leap Year?" Blond Betty said: "Definitely no! Chasing a man is a good way to lose him."

Betty has since become engaged to George Bosworth, Jr., of Albuquerque.

Daughter's Wedding

Mr. and Mrs. W. A. Middleton have announced the wedding of their daughter Roberta Anne to Hobart Noble, Jr., of Albuquerque. The ceremony was held in First Methodist Church Mar. 10. "Pop" Middleton, as he is affectionately known, works in Org. 2351-2.

Swimmers Diet

With the opening of the Coronado Club pool only months away, much preparation is already underway by swimming enthusiasts in 2721, as evidenced by the cottage cheese and boiled egg diets.

Camera Club Invitation

Many Sandians are members of the Enchanted Camera Club which meets every other Thursday night at 7:30 p.m. in Botts Memorial Hall, which is located next to the Public Library. The next meeting will be held Mar. 29. At present, the club is offering classes in photography. George Revels, 2721-1, one of the founders of the club, may be contacted at ext. 24171 for further information.

Going to Naval Academy

Lee Hight, son of S. C. Hight, 5100, has received an appointment to the U. S. Naval Academy, Annapolis, Md.



BAND LEADERS—Mr. and Mrs. Tommy Kelly had a chat with Ralph Marterie who brought his orchestra to the Coronado Club recently. Tommy is a band leader himself and played at the Club St. Patrick's Day, Mar. 17.

Professional R Group E Activities

Circuit Theory

Dr. B. L. Basore, 1431, will address the Professional Group on Circuit Theory at a meeting Wednesday, Mar. 28, in Room 218, Mitchell Hall, UNM. His topic will be "Review of Applications of Fourier Integral Transforms." The meeting begins at 8 p.m.

Antennas-Microwave

A joint meeting of Antennas and Propagation and Microwave Theory and Techniques groups is scheduled Apr. 2 at 8 p.m. John R. Ames, 1412, will discuss advantages and problems of microwave telemetering. The groups will meet in his home at 214 Sierra Dr. SE.

J. D. Shreve Dinner Speaker to New Mexico Professional Engineers

Dr. James D. Shreve, Jr., 5112, will address the dinner meeting of the New Mexico Society of Professional Engineers at the Desert Sands Motel, 5000 Central Ave., S.E., Monday, Mar. 26. Dinner will be served at 6:30 p.m. He will speak on the subject of "Atomic Nuclei at Work."



J. D. Shreve

Dr. Shreve received his B.A. Degree in Physics at Franklin and Marshall College and his M.S. and Ph.D. Degrees at Lehigh University. He served in the U.S. Navy during World War II and is now in charge of the Model Studies Division at Sandia Corporation.

Reservations for the dinner may be made by calling A. B. Metzger, 3210, ext. 23258.

Art Exhibition Entries Accepted At Club Tomorrow

Tomorrow morning at 9 is the acceptance time when all artists may enter the annual Sandia Corp. art show. The exhibit will be at the Coronado Club Mar. 25-31.

Two categories are open to Sandia and AEC employees or their families, either amateur or professional with the artist deciding which he is entering. Public vote will determine the prizes of \$15, \$10, or \$5 in each category.

Entries are limited to two for each artist, any medium, any size.

2 - 5 - 10 Years

Sandia Corporation Service Awards

Two-Year Certificates

Mar. 23-31
Jess Denton 2452, Kyle B. Williams 2151, Fidel B. Zamora 2462, John C. Klimka 2151, Louise A. Lewis 2152, Evelyn E. Mohar 2531, Martha A. Gelt 2462.
Marvin J. Steptis 2151, W. S. Spradling 2151, Norman G. Baker 2483, Barbara A. Franks 7225, Vonna J. Burroughs 7411, John C. Zimmerman 1224, Carol E. Cowan 7411.

Apr. 1-5

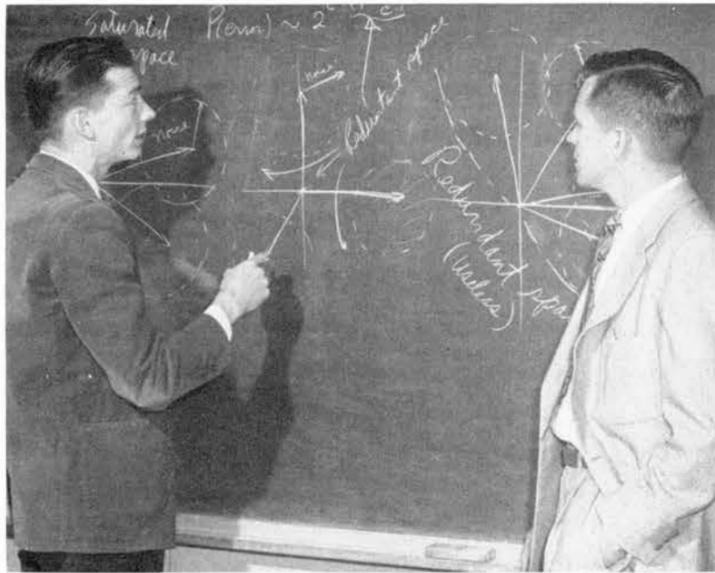
Dorothy E. Mann 7225, William E. Zemka 7411, W. F. Shoemaker 1241, John J. Pinnell 2122, Kenneth O. Crays 5212, Oscar F. Goodwin 2462.

Five-Year Pins

Mar. 23-31
Florence C. Stowers 2462, John J. Colwell, Jr. 1284, Fred T. Crocker 2211, C. M. Guel-denzoph 2151, Eloy C. Pena 7232, Henry R. Welch 2412, Leonidas T. Wilson 1281.
Noble A. Gruenoch 5531, James A. Hay 2152, Lawrence E. Colson 2452, Jose I. Garcia 2417, Leonard G. Thompson 2722, Francis E. Berry 2151.
Elmer J. Stymiest 2331, Joseph A. Maldonado 2232, George W. Cromie 7216, Adam Manzanares 2419, Edith M. Moya 2711, James A. Ford 1224, Herminio Baros 5243.

Apr. 1-5

Carl H. Nylander 7411, Milton O. Jones 1613, Gene W. McClendon 2112, Joe M. Sanchez 7329, Webb E. Shafer 2452, Vern N. Sowards 2152, J. B. Sweatman 2113, Frances H. Voorhies 3164.
Hugh R. Young 2452, Mildred C. Knight 7225, Maynard Cowan, Jr. 5111, Jose A. Saavedra 2419, Alvarado S. Torres 2124, Howard L. Davis 1611.
Charles A. Gump 1216, Geraldine O. Hickey 7225, Marcel C. Schiess 5530, Santiago Otero 2351, Fred R. Callahan 2231, S. Berenice Henry 2464, John M. Hart 7123.



"DISCUSSING TYPES OF REDUNDANCY as viewed in the message space of a communication link model" is holding the concentration of Dr. B. L. Basore, 1431, left and Walter E. Brown, chairman of the IRE Professional Group on Information Theory.

IRE Professional Study

Science of Communication Studied by Engineers in Information Theory Group

One of a series of articles on Professional Groups in the Institute of Radio Engineers.

A small and enthusiastic group of electrical engineers meets regularly to study and compare findings on the handling of information needed to satisfy human requirements.

These "seekers of knowledge" are members of the Institute of Radio Engineers Professional Group on Information Theory.

Usually their studies are directed toward improving communication channels or coding processes in electrical devices. However, the group is interested in nearly all systems that require information interchange for successful operation.

Walter Brown, who works in Sandia Corporation's Electronic Research Department, 1410, is chairman of the local PGIT.

Information theory, according to Chairman Brown, is based on communications and probability theory.

"It is more mathematical in nature than many of the subjects pursued by other groups," according to Brown who attributes the small membership to this fact.

Col. B. L. Skinner, Chief of Support Equipment Division at KAFB, is vice-chairman of the group and Charles H. Bidwell, Electronic Systems Department, 1430, is secretary. The group was organized in October,

Ski Party Climbs Highest Mountain

A ski tour to Mt. Wheeler will be made this weekend by the New Mexico Mountain Club, with Hank Tendam, 1215, leading the climb up the highest mountain in the state.

The ski party will leave tonight, camping out along the way, and will return Sunday. Intermediate to advanced skiing ability is required.

1952, and recognized by the National PGIT in December of that year.

Two outstanding achievements have been made by the local group recently. Papers by Col. Skinner and Dr. B. L. Basore, also of the Electronic Systems Department, have been published.

Col. Skinner's paper, "Spectra of Waves With Periodic Modulation," was published in *Proceedings*, national publication of the IRE.

"Threshold Detection," by Dr. Basore, was published in the *IRE Convention Record*. Dr. Basore recently appeared before a section meeting of PGIT in Kansas City speaking on "Information Theory: An Engineering Tool."

"A great deal of work goes into preparation of such papers," Walt Brown tells, "but we feel it is justified for they are important in establishing a record of research which may be a reference for other engineers concerned with the same problems."

Mr. Brown recently read a paper titled "Communications Patterns In Small Groups" at a meeting of the PGIT. The paper discussed experimental results of a study which indicated how group organizations might affect morale, efficiency and leadership.

Such papers as the few mentioned show active interest these scientists have in their field and their continuing efforts to stay abreast the field of study through individual research.

Other members of the group include Thomas G. Banks, 1423, C. S. Williams, Jr., 1431, Alex Fursa, 1431, and Richard K. Moore, UNM Consultant to the Electronic Research Department.

G. I. News

From Sandians in The Armed Forces

San Francisco Meeting
The reunion of three former Sandia Corporation men, who entered Navy service in July, 1954, was held in San Francisco recently. They were Ens. E. G. Janssen, Ens. Joseph Sheridan and Ens. Emil Kadlec.

Janssen is Assistant Shops Engineer for Maintenance at the San Francisco Naval Shipyard. Sheridan is in the Contract Section of the Public Works Department at the Naval Air Station, Alameda. Kadlec is stationed at White Sands Proving Ground where he is Assistant Public Works Officer.

Each has previously attended Officer Candidate School, Newport, R. I., and the Civil Engineer Corps School at Port Hueneme, Calif.

Visits Corporation

A recent visitor to Sandia Corporation was Ens. Steve Luchter, formerly a staff member of 5142. Last August, Steve entered Officer Candidate School in Newport, R. I., and is now temporarily stationed at Sandia Base for special weapons training. In mid-May, he will be transferred to San Diego for duty with SWUPAC (Special Weapons Unit Pacific).

In Service School

Bruce A. Wickesberg, who left Org. 5133 for military service last December, is attending Signal School at Fort Monmouth, N. J. His address is:

Lt. Bruce A. Wickesberg
04057355
OSD, Sec. 727
Fort Monmouth, N. J.

Two Meetings in April Scheduled For IRE Members

Two meetings of the Institute of Radio Engineers are scheduled in April according to H. D. Finch, 5251, acting publicity chairman.

The first, originally scheduled for Mar. 22, is an address by Gen. W. M. Canterbury, Commanding General of the Air Force Special Weapons Center at Kirtland. Gen. Canterbury will discuss the AFSWC program Apr. 2 at 7 p.m. in Room 101 of Mitchell Hall, UNM.

On Apr. 9, the IRE and the American Institute of Electrical Engineers jointly sponsor the General Electric House of Magic show. The display will be at Public Service Co.'s "Reddy's Rendezvous" at 5th and Central at 7:30 p.m. Also included will be a plastic and chemical demonstration and music "on a beam of light."

For 25 years the GE House of Magic has popularized science before an estimated audience of 20 million. Members and their families should find it educational and entertaining, Finch said.

Tech Council Sets New Meeting Date

A new meeting date has been announced for the New Mexico Council of Technical and Scientific Societies, according to Nicholas Sannella, 1422, president. The date now scheduled is Apr. 9. R. W. Henderson, Director of Systems Development, 1200, will speak on guidance and assistance for high school and college students to stimulate interest in engineering and sciences.

ASTE Installs New Officers

New officers were recently installed for the American Society of Tool Engineers. H. R. Hanen, Tool Design section, 2542, will head the group as chairman.

First Vice-Chairman is Paul Stewart, also of 2542. Jim Felner, ACF, is the Second Vice-Chairman. Secretary is Henry Durlinger, 2532, and Treasurer is Arthur Stewart, ACF.

ASM President to Speak at Santa Fe



A. O. Schaefer W. H. Eisenman

A Smorgasbord and dance for the Albuquerque and Los Alamos chapters of the American Society of Metals is scheduled to be held at the La Fonda Hotel in Santa Fe, Friday, Mar. 30, at 7 p.m.

A. O. Schaefer, national president of the society, and W. H. Eisenman, national secretary, will outline briefly plans for "The American Society of Metals of Tomorrow."

Guests, particularly those with interests in the metals field, are welcome. Further information, reservations and tickets can be obtained by contacting Harry Holmes, 1621-2, ext. 31258 or Doug Ballard, 1634, ext. 43240.

Caravan Club to Coordinate Work With Law Official

Coordination of activities of the Amateur Radio Caravan Club of N. Mex. with the Bernalillo County Sheriff's department will be discussed by Capt. A. S. Rodgers, sheriff's department, when the club meets Wednesday, Mar. 28.

Members will meet on the air on 29.6 megacycles at 7:30 p.m. and proceed to the Lovelace Clinic Radiation Therapy Lab to hear Capt. Rodgers, according to Jim Stueber, 5223, secretary.

Wednesday, Apr. 4, the Caravan Club will hold its monthly "Hidden Transmitter Hunt" meeting at Central and San Mateo. Brooks Braffett, 1413, winner of last month's hunt earns the privilege this month of hiding the transmitter.

Anyone with direction finding equipment in their car or anyone interested in joining the search is welcome.

TV Puppets Star At Easter Party

Vic Izay and the puppets of Jim Morley, stars of the KGGM-TV children's program "On Camera," will appear in person at the Annual Coronado Club Kid's Easter Party Mar. 31.

Adding to the festivities will be entertainment provided by J. J. "Mike" Michnovicz, 2462, who will run over the keys of his accordion and conduct group singing.

The party will get under way at 2 p.m. with candy and cokes provided for all the kids.

Magicians Elect Sandians Officers

Three Sandians were elected as officers of the Albuquerque Magicians Club, a branch of the International Brotherhood of Magicians, at a meeting recently. Ray Knight, 7412-2, will take over presidential duties of the pre-to-artists with Willard Scranton, 2582-3, as secretary-treasurer. Fred Darugh, 1461, outgoing president, was named as Territorial Vice-President of the international organization.

Seeking Bids for New Warehouse Building

A new utility building is planned for Sandia Corp. in the south Tech Area, according to Harry H. Pastorius, Plant Inspection Division, 2442. It will be designated Bldg. 881 and used as a Flammables Storage Warehouse by General Services Department 7230. The building will be constructed of masonry block and reinforced concrete with approximately 2,000 square feet of area.

Bids will be opened Mar. 29 for construction of the building. Cost is estimated to range from \$25,000 to \$35,000.



Leo M. Jercinovic
7200
Mar. 25



John J. Michnovicz
2460
Mar. 25



Clarence G. Sproul
1284
Mar. 26



Greg A. Abeyta
5211
Mar. 27



John J. Dawson
1230
Apr. 1



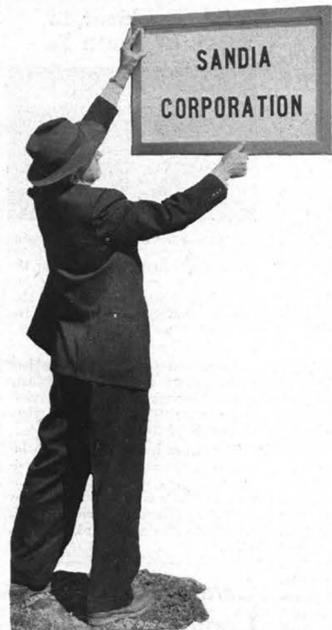
William E. Boyes
2700
Apr. 4



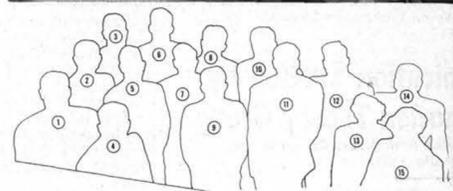
Alfred A. Young
5251
Apr. 5

It's 'Westward Ho' for some Sandia Employees

Livermore, California, Site of New Sandia Branch



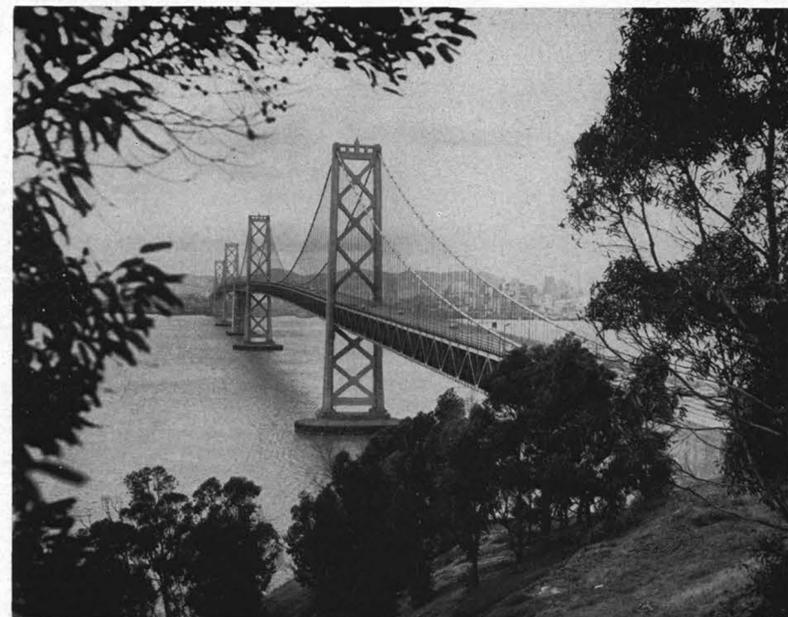
SHINGLE IS OUT — Charles Gump, one of the early arrivals at the Sandia Branch in Livermore, placed Sandia Corporation's sign on the new quarters.



EARLY ARRIVALS at Livermore Branch of Sandia Corporation included these people who transferred from Albuquerque. 1. C. E. Barncord, 2. Charles A. Gump, 3. Clifford O. Erickson, 4. Benjamin F. Fisher, Jr., 5. Robert L. Siglock, 6. Stanford G. Cain, 7. Vernon M. Field, 8. Charles Winter, 9. Wayne A. Grimshaw, 10. Frank J. Thomas, 11. Orval W. Wallen, 12. James McMinn, 13. Mary A. VanBrocklin, 14. William B. Marsh, 15. Nora Belle Byrd.



LIVERMORE BRANCH HEADQUARTERS building was receiving final remodeling touches when this picture was taken. The building is inside the Livermore Laboratory technical area, near the main gate. Offices, drafting room, laboratories and other facilities for Sandia Branch personnel are provided in the building pictured here.



SAN FRANCISCO, only 50 miles from Livermore, is one of America's most fascinating cities. A cultural center and mecca for tourists, the city is a favorite visiting point for Sandians who are located at the Livermore Branch.



ENGINEERING PROBLEMS are tackled by Livermore Branch employees of Sandia. Front, L to R: William A. Marsh, Stanford G. Cain, Charles Winter. Rear, L to R: Frank Thomas, Orville Wallen, Ben Fisher and Vernon Field.



INCOMING MAIL is received by Mary A. VanBrocklin, one of the first two women transferred from Albuquerque to Livermore. She is pictured here with James McMinn, supervisor of the Services Section, 1253-2.



MODERN CAFETERIA — An attractive and comfortable cafeteria has been built for use by the UCRL and Sandia Corporation personnel. Centrally located, the cafeteria serves excellent meals at convenient hours each day.



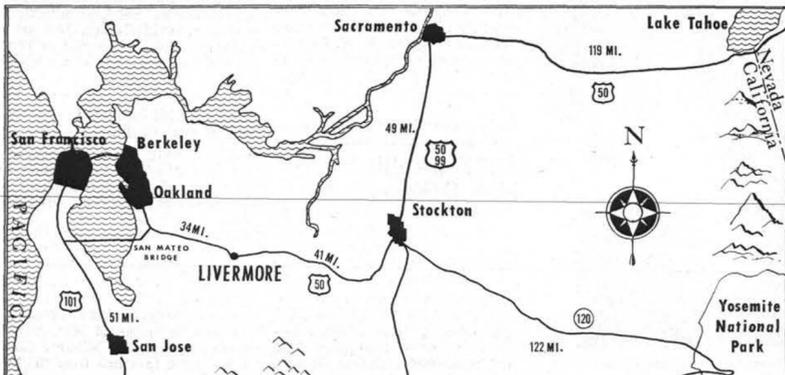
CHURCHES of Livermore are beautiful and in keeping with the architecture of California.



FOUR LANE highway, U. S. 50, passes through the edge of Livermore. The excellent road provides good access to the Bay Area and to the mountains eastward.



ROLLING HILLS surrounding Livermore Valley are dotted with farms, vineyards, ranches.



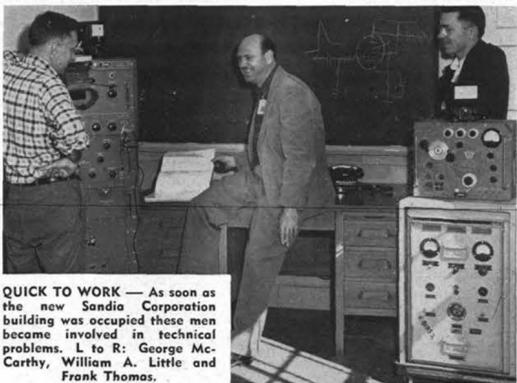
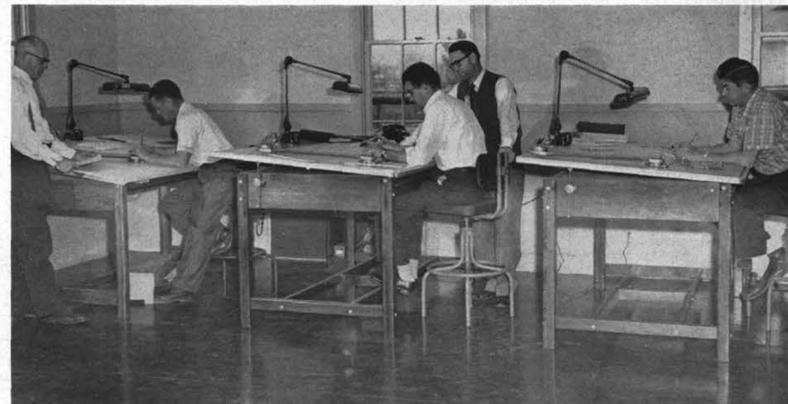
THE PICTURES—THE STORY

These photographs and the story on Page 1 mark the opening of a new phase of history for Sandia Corporation — the announcement of the founding of Livermore Branch of the Corporation at the University of California Radiation Laboratory, Livermore, Calif.



CHARLES R. BARNCORD, right, is supervisor of Project Division, 1251. He is shown with Nora Belle Byrd.

DRAFTSMEN at Livermore Branch are represented by these men: L to R: Maurice R. Taylor, Wayne Grimshaw, George Martin, Robert L. Siglock and Clifford Erickson.



QUICK TO WORK — As soon as the new Sandia Corporation building was occupied these men became involved in technical problems. L to R: George McCarthy, William A. Little and Frank Thomas.



LIVERMORE HOME — Vernon M. Field and his wife, Rogene, were among the first Sandia employees to purchase new homes in Livermore. They were happy to move into a three bedroom home complete with a patio. They are pictured here with their children, Scott, 8, and Renita, 5.



PICTURE COVERAGE of Livermore for the Sandia Lab News was done by Wally Boyes, supervisor of the Photographic Section, 2462-1.



MAN OR BIRD? Actually, this strange figure is both, for he is an Indian wearing the famous Eagle Dancer's costume for one of the most revered of the many Indian ceremonials. This picture was taken at Gallup, N. Mex., where the Inter-Tribal Ceremonial is held every year in mid-August.

Ancient Rituals Preserved By Indians of Southwest

Ceremonial ritual of the Southwest Indian is a broad field of study. We have presented here only partial descriptions of a few of the interesting dances which are held throughout the year in nearby pueblos and reservations.

A frenzied shriek pierces the cold silence before dawn. In the light of smoldering fires, masked figures drag huge trees to the fires, then circle the roaring flames, leaping, howling, beating their own bodies and others with flaming brands.

This Fire Dance of the Navajo Indian is a genuine religious expression of a serious people, reflecting a deep ancestral fear of fire.

Ceremonials of the Southwest Indian—in New Mexico principally the Pueblo, the Navajo and the Apache—are among the strangest relics of pagan worship on this continent.

Secret Rites

White men are usually permitted to witness only the "dance" which may climax many days of elaborate ceremonies in kivas or medicine lodges. Significance of these secret rites and many movements in the dance may be unknown to the lay Indian. Ancient mythology is often understood only by medicine men who guard their secrets zealously.

Indian philosophy is: "Unless we do it this way, our prayer will not be answered. This is the way of the ancients."

Any event in daily living may be dignified by Indian ritual. There are prayers for birth and death, good health, fruitfulness or thanks for harvest, the hunt, the sun, the rain. The rain is particularly sacred to the Southwestern Indian who seeks his livelihood in an arid country. War dances are re-enacted by some tribes, using real scalps from bygone days and early American and Indian weapons.

Character and tempo of ceremonials vary according to the history, customs and religions of the pueblos and tribes. Peaceable Pueblo people often hold humorous or social observances, whereas the Navajo and Apache, warriors of old, perform only for a solemn purpose.

Pueblo Dwellers

Pueblo Indians were so named by early Spanish explorers who found them living in small villages, the Spanish word for village being "pueblo" (pronounced "pweb'-lo", not "pew-eb'-lo".) There are about 15,000 Pueblo Indians in New Mexico in 18 pueblos, the largest being Zuni located 40 miles south of Gallup.

One of the most interesting Pueblo events is the Zuni Shalako featuring the dancing of huge masked Kachinas, some appearing as oversize dolls nine feet tall imitating the Pueblo's ancient gods. Held in November or December, the Shalako is assurance that moisture will be provided whenever needed.

Near Zuni is the site of the legendary "Seven Cities of Cibola" that first lured Spanish explorers up from Mexico in search of gold.

The Conquistadores are often subjects of Pueblo jokes, with pantomime representatives of the first white men in imaginary coats of mail.

Seasonable Dances

Winters in the Pueblos bring dances for the hunt, dancers dressed as deer, buffalo, antelope or mountain sheep. Popular among these are the Deer Dance at Taos, the Buffalo and Deer Dance at San Felipe.

In the Spring, the Parrot Dance is held at Santo Domingo, the idea being that seeds from the parrot's basket once planted will bring fruitfulness. The Turtle or Evergreen Dance at Isleta is a prayer for water. The Indian's belief that an eagle's strength "can cure anything," inspires a healing ceremony at Tesuque, the Eagle Dance.

Dances of the summer and autumn are for growth and rainfall, the best known being the Corn Dance. Cochiti, San Felipe, Santo Domingo and various other Pueblos will hold Corn Dances in April.

The Rio Grande Pueblos commemorate the day of the saint for whom the Spaniards named their village with fiestas ranging in size and elaborateness. A magnificent spectacle is staged Aug. 4 at Santo Domingo where several hundred brilliantly-arrayed dancers participate.

Navajos Largest

Unlike the Pueblo dwellers, the Navajos live on a large reservation which includes parts of northwestern New Mexico, northeastern Arizona and southeastern Utah. About half of the tribe of over 60,000 live in New Mexico in "hogans" which are usually round with a single entrance always facing the East.

The Navajos have many religious practices that may appear strange

to visitors who do not understand them. Their Fire Dance in November is one of these. Prayers for good health, protection from harm, good crops and livestock are the most common. Their songs, chants and gestures contain a note of insistent urgency.

Ceremonial life is intricate and elaborate, and the medicine man is its central and moving spirit.

At only one ceremony, the Squaw Dance, do couples dance. It is a combined war and healing dance, disease figuring as the enemy to be defeated.

Navajos are excellent riders and many compete in the all-Indian rodeo at the great Inter-Tribal Ceremonial, the most spectacular all-Indian event in the nation at Gallup, the Indian Capital.

Also the Shiprock Fair in September is an outstanding event for the Navajos, who compete in rodeos, races and other sports. Spectators can see the Navajo people in their ancient customs, dances and other activities.

Apache Reservations

The Apache Indians are of the same racial stock as the Navajos. They live on two reservations in New Mexico—the Mescalero in the south central part of the state and the Jicarilla in northern New Mexico. They total about 2,000 in number.

Many Apaches live in tepees, a kind of tent-like structure covered with canvas or animal skins. Those in forested areas often build brush shelters called wickiups, others live in regular houses.

While today they are peaceful, law abiding people—as are their Indian neighbors—in the early days of the Southwest the Apaches were fierce warriors whose very name brought terror to pioneers and soldiers who fought them.

Much of this spirit is evident in the Apaches' numerous religious observances performed only for the most solemn occasions, such as the imaginary setting out of a war party.

The famous Devil Dance, properly known as the Mountain Spirits or Crown Dance, is perhaps their best known. Grotesque, painted figures, in towering crowns not less than two feet tall and wider than a man's shoulder, mimic ancient gods.

Ornate Symbols, Garments

Strange symbols on alters and sand paintings in ceremonial chambers and the costumes worn by both Pueblo and Tribal dancers play a picturesque and colorful part in the splendor of the Indian dance. Favorite symbols are the plumed serpent—lightning—and those of rain and rainbows.

Bizarre masks, beads, fox furs, fine white buckskin, painted shields of buffalo hides, white kirtles, eagle feathers, shells, jewelry, turtle rattles, beaded quivers full of arrows are a few ornamentations used.

The Indian ceremonials truly belong to a unique period of human culture which has continued, without serious alterations, for thousands of years. Only by watching the rhythmic dances in their entirety at the pueblos and reservations can the magnificent antiquity behind them be appreciated.

They exemplify the enduring cohesion of the "first Americans" maintaining his ancestral worship despite foreign infiltration and domination.

Here in modern civilization is a beautiful survival of primitive pagantry—a survival to be respected and preserved as an art.

Sympathy

To James P. Seay, 2323, for the death of his mother Mar. 1 in Tahlequah, Okla.

To the family of Richard R. Robey, AEC, for his death Mar. 16 in Albuquerque.

Success of 1956 Easter Seal Sale Decides Help Available to Local Crippled Children

Several wives of Sandia Corporation employees are volunteering to assist the traditional sale of Easter Seals for the Society for Crippled Children and Adults.



Mrs. Nicholas Vytlacil is chairman of the coin container committee for the drive. Her responsibility is placing coin containers in stores, offices and public places throughout Bernalillo County. Assisting her in this task are Mrs. William A. Gorry and Mrs. Dave Robertson.

Money from the sale of Easter Seals and contributions received through coin containers and special events will be used to continue and expand the work of the Society.

The program has been tripled since last year. In addition to providing statewide services such as diagnosis, surgery and therapy, the society will

provide epilepsy treatment, a wheelchair and crutch loan service, adult and school education programs and support to the Cerebral Palsy Clinic.

Depending upon the success of the Easter Seal sales this year, the New Mexico Society plans to add to its program a summer camp for crippled children at Ruidoso, N. Mex., and a mobile unit with facilities for therapy and testing.

Also planned is a modern Rehabilitation Center to serve crippled children and adults in New Mexico. The Center will be located in Albuquerque, probably near the University of New Mexico.

During the week of Mar. 26, coin containers will be placed in various Sandia Corporation buildings and at the Coronado Club.

Sandia Statistician Proves Probability of Same Birth Dates

A Sandia mathematician has won some interesting wagers by proving, mathematically, the probability of duplicate birth dates in any given group of people.

According to his calculations, a group of 23 persons has a better than even chance of having at least one duplication of birth dates; for 30 the odds are better than two to one, and for 40 better than eight to one.

As proof, he submits the following: The probability that the second member of the group has a different birthday from the first is 364/365. If this is so, then the probability that the third has a birthday different from the first two is 363/365. Continuing in this way, the probability that the first 23 are all different is 364/365 x 363/365 x 362/365 . . . x 343/365, which is slightly less than one-half. Other size groups can be similarly solved.



AFTER THE DANCE—Four figures pause to rest on a hill top. They have been dancing the famed "Devil Dance" of the Mescalero Apache tribe which once formed the fierce fighting band led by Geronimo.



Jose A. Chacon



Robert M. Hawk



Charles L. Hines

Three Enter Legislative Race

Three Sandians are seeking nomination for Representative from Bernalillo County to the State Legislature.

Charles L. Hines is administrative assistant in Technical Administrative Service Division, 7213.

He has been employed at Sandia for over five years. He earned a naval commission from the naval ROTC at UNM and after World War II he attended the University of Arizona. He graduated with a

BS in Business Administration and Agriculture. Hines is married and has two children.

Robert M. Hawk, section supervisor, Base Spares Procurement and Distribution Section, 7329-1, has been active in the Democratic party in New Mexico since 1948. A political science major, he graduated from UNM in 1949 and has been employed at Sandia since that year. He is a bachelor.

Jose A. Chacon, an engineer in Operations Division 7311, is making his first venture into politics. He has been employed at Sandia 17 months. A veteran of WW II, he graduated from West Point in 1951 and was awarded over eight citations for combat service during the Korean Conflict. He is working on his M.A. degree evenings at UNM majoring in government. Chacon is married and has a daughter.



FIRST AID EXERCISE is conducted by members of Boy Scout Troop 184. W. M. Bacchus, 1413, Scoutmaster, is directing activities from the door of the car. Left to right the Scouts are Wayne Pritchard, son of W. L. Pritchard, a Plant Security Inspector in 2452. Next is David Otto, Steve Bacchus, son of W. M. Bacchus, and Johnny Montgomery. Lying on the stretcher is Kim Lowe whose father, N. C. Lowe, is an Electrical Inspector in the Plant Inspection Division, 1442.

Community Chest Agency

Great Rewards Result From Your Dollars Spent for Boy Scouts of America Troops

This is another of a series of articles telling about the agencies of the Albuquerque Community Chest, and the help Sandians are providing in the year around work of these organizations.

Many Sandians are enjoying the satisfactions of contributing to activities of the Boy Scouts, an agency of the Albuquerque Community Chest. Guiding youth through Scouting is rewarding in many ways, according to W. M. Bacchus, 1413, Scoutmaster of Troop 184.

Scouting incorporates all the ideals and enthusiasms of American youth. Character development is stressed through group activities of camping, hiking, wood and leather craft projects, outdoor recreation, instruction in first aid and lifesaving, and physical education.

"It is a fine thing to know that you have helped these boys to be self-reliant, able to meet emergencies . . . to be strong and loyal, to realize their obligations to their community and to God," Bacchus said. He has been working with the

Boy Scouts in Albuquerque since 1949.

The Boy Scout organization in Albuquerque is continually growing, and great need exists for more institutions to sponsor local Scout troops. Civic groups, churches, or schools sponsor a troop, usually providing it with a meeting place and adult leadership.

The program is administered by volunteer adults with the help of the Albuquerque Boy Scout headquarters.

These volunteers, usually grown-up scouts, perform many duties: scoutmaster, Cub leaders, unit committee members, explorer advisors, district committees, district commissioners, merit badge advisors and assistants.

The volunteers are the actual leaders of the program, working directly with the boys. The local professional representatives of the national Boy Scout organization perform administrative duties.

Approximately 300 Sandians contribute volunteer services to local Scout organizations, according to Fred Carson, Albuquerque Director of Field Services.

GM Proving Ground Official Speaks to ASTE, ASME Members

Local chapters of the American Society of Tool Engineers and the American Society of Mechanical Engineers will meet for dinner and a joint business session Apr. 5 at 7 p.m. in the Western Room, Hilton Hotel.

Louis C. Lunderstorm, Assistant Director of General Motors Proving Grounds, Milford, Mich., will show a film of the GM Proving Grounds. He will explain the experimental engineering in design, construction and use of special instrumentation and equipment for testing of motor vehicles.

For reservations call C. H. Meyer, 1641, ext. 22252, Tom Reinhardt, 2531, ext. 26144, or A. C. Good, 2531, ext. 360.

Bowling Jackpot Ready and Waiting

With over \$100 waiting in the pot, the Coronado Club weekend open bowling jackpot continues with doubles partners still unable to break the 1300 score. Bowlers may participate in singles separately or concurrently with the doubles.

Participants must be club members and have an ABC average established this year. Entry fees are 50c each for doubles and 25c for singles.

Bowling for the jackpot is on Saturdays and Sundays from 1 to 6 p.m. The termination date for both doubles and singles will be at the time a doubles combination hits 1300 or more.

Congratulations

BORN TO:

Mr. and Mrs. R. P. Noble, 1462-2, a daughter, Sherry, Mar. 3.

Mr. and Mrs. Billie Palmer, 2461, a son, Raymond Donald, Feb. 27.

Mr. and Mrs. Carl Scheiber, 2531, a son, Richard Lee, Mar. 14.

Mr. and Mrs. Dick Kavet, 2553, a son, Karl Denio, Mar. 1.

Mr. and Mrs. E. F. Johnson, 1624, a son, Leif Lucas Marsh, Mar. 1.

Mr. and Mrs. Harold Oldham (Mrs. Oldham formerly of 7225-5), a daughter, Stacey, Mar. 7.

Promotions

MARTIN E. GROTHE to manager of Cost and Accounting Department, 4150.

For the past three and one-half years, Martin has been supervisor of Financial Division, 6021. He came to Sandia in October, 1948, as supervisor of the then existing Budget Division. When an Accounting Department was established by Western Electric in 1949, Martin became supervisor of the Accounting Division.

Prior to World War II, Martin spent many years in the banking profession in Milwaukee, Wis., including eight years with the State Banking Commission there. He served three and one-half years with the Air Force as an aircraft engineer in England.

Martin has a B.A. degree in economics from the University of New Mexico. He was elected to Phi Kappa Phi, honorary scholastic fraternity.

CHARLES L. CARPENTER to supervisor of Project Division 1217, Engineering Department A.

Until Mar. 1 he was supervisor of Project Section 1241-1. He joined the Corporation staff in January, 1952.

Previous employment included four years with Sears Porcelain Co., Golden, Colo., as supervisor of industrial products division; two years as project engineer in the engineering development shop of Gates Rubber Co., Denver; and six years as project engineer with Wright Aeronautical Corp., Patterson and Wood Ridge, N. J.

Charles holds a B.S. degree in mechanical engineering with aeronautical option and also a Professional degree in mechanical engineering from the University of Colorado.

He is a member of Society of Automotive Engineers and American Ordnance Association and a registered professional engineer in Colorado.

H. C. Biggs Writes Of Lab's Unique Standards Work

"The Special Weapons System of Standardization" by H. C. Biggs of Sandia Corporation is the lead article in the February, 1956, issue of The Magazine of Standards.

Mr. Biggs is Manager of the Physical and Standards Department, 1650.

In the article Mr. Biggs points out that the production of atomic weapons differs from other industrial production sufficiently that it was necessary to develop a special weapons system of standardization at Sandia which is unique in American industry.

Mr. Biggs tells how the system was developed and how it has proven capable of doing the job of providing uniform standards for the entire atomic weapons program.

A graduate of the University of California in 1940, he worked for General Electric X-ray Corp., the War Department, University of California and Consolidated Vultee Aircraft Corp. before coming to Sandia in August, 1948.

He was a staff member, section supervisor and division supervisor before becoming Manager of 1650 in July, 1953.

ROBERT L. PEURIFOY, JR., to supervisor of the newly-created 1245-2 Section, Engineering Department C.

Bob's duties with Sandia Corporation since his employment here in June, 1952, have been chiefly in test and systems design. An electrical engineer, he was assigned three years to Project Division 1242, last July moved to 1210, Engineering Department A.

In June, 1952, Bob obtained his B.S. degree in electrical engineering from Texas A & M College. He is a member of American Institute of Electrical Engineers and Institute of Radio Engineers.

JAMES McMINN to supervisor of the newly-created 1253-2 Section, Administrative Division of Engineering Department 1250, Livermore, Calif.

Jim came to Sandia Corporation as an administrative assistant in June, 1952, and has served in that capacity in various departments. He was a staff assistant in Department 5210 until his transfer to Livermore last September.

He served with the Army from 1941 until 1948 and spent four years in the Philippines as a prisoner of the Japanese. Discharged with the rank of Lieutenant Colonel, he went to work for Potash Company of America, Carlsbad, as foreman in the shipping department. He later worked for a real estate appraising firm in Carlsbad before coming to Sandia.

JAMES H. DAVIS to supervisor of Project Section 1224-2, Engineering Department Y.

Jim has been employed four years as a staff member with Sandia Corporation. Much of his work here has been in mechanical design.

Earlier, he spent one and one-half years as a tool designer with Convair Aircraft, Ft. Worth, and eight months as chief computer for Southern Geophysical Co., Ft. Worth.

A graduate of Oklahoma A & M College, Jim received a B.S. degree in mechanical engineering. He became a member of Pi Tau Sigma, mechanical engineering fraternity, and Phi Kappa Phi, honorary scholastic fraternity.

EUGENE K. GARDNER to supervisor of Project Shops Division B, 2154, Mechanical Department.

A Sandian since July, 1952, Gene was a staff member in the Standards Engineering Department until he became supervisor of Project Section 1224-2 several years ago.

He worked as an industrial engineer with two Massachusetts firms, Union Twist Drill Co., of Athol, and Sylvania Electric Products, Danvers and Ipswich. For 10 years he was associated with the maintenance and production departments of Jones and Lamson Machine Co., Springfield, Vt.

Gene earned a mechanical engineering degree from Stevens Institute of Technology, Hoboken, N. J., and is a registered engineer in Massachusetts. He is a member of American Society of Mechanical Engineers and Society of Tool Engineers.



Martin E. Grothe

Charles L. Carpenter



Robert L. Peurifoy, Jr.

shopping center

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication.

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

Next Deadline: Noon, Mar. 30

FOR SALE—

- DOOR, outside; Dormeyer mixer; Handy Hot washer; '41 Ford 1½ ton truck w/48 motor, \$195. Andrews, Alb. 6-3256.
- CHAIR, leather & upholstered, \$15. Sayel, Alb. 5-7328.
- ELECTRIC RANGE, apt. size. Fesler, Alb. 9-1020.
- PICKUP TRUCK, '50 Chevrolet, ½ ton, 4-speed transmission, good tires, heater, low mileage, new paint, \$365. Andrews, Alb. 6-7328.
- 3-BR. HOME, Mossman, furnished, dining room, divided bath, trees, walls, patio. Bie, Alb. 5-3408, before 10, after 5.
- BICYCLE, 26" Schwinn, rebuilt, \$6. North, Alb. 5-5673.
- TRAILER, 2-wheel, metal pickup truck box & fenders, \$85. Koetter, Alb. 6-6904.
- MOTOR, prop pitch, converted f/beam rotator; Ford station wagon rear seat, spotlight, tire cover. Marshall, Alb. 4-1020, after 6.
- POODLE PUPS, standard, 2 brown, 2 black. Donovan, 9-5166.
- LOT, 50' x 180', utilities, paving paid, \$600. Waldorf, Alb. 3-0589.
- TRANSFORMERS, CG-307, 3000 volts, 300 mills, commercial; misc. radio equipment. Baltz, Alb. 5-8441.
- 3-BR. HOME, 1¾ bath, carpeted, air conditioned, landscaped, walled. Bastwick, Alb. 9-5345.
- CAMERA, Leica 35mm color, F/3.5 elmar lens, coupled rangefinder, case, \$90; 16mm movie film enlarging camera, \$12. Shew, ext. 22156.
- TAPE RECORDER, Weber 210-1C, \$100. Henderson, Alb. 6-6354.
- OUTBOARD MOTORS, 1 Evinrude 3HP twin Fisherman, \$75; 1 Evinrude Hush Power 25 HP, electric starting, remote controls, nearly new, \$375. White, Alb. 5-8491.
- MOTORCYCLE, '52 Harley, shield, saddle bags, crash bars, overhauled, 3500 miles. Dobias, Alb. 6-9235.
- '46 CHEVROLET club coup., R&H, \$135. Bailis, Alb. 6-6586.
- '48 FORD sedan, 2-dr., W/W tires, V-8, \$160. Officer, Alb. 6-0337.
- BICYCLE, boys' 26", \$10. McCord, Alb. 3-4273.
- SHORTWAVE RECEIVER, B C - 3 4 8 H, adapted for 110, 250-500 KC & 1.5-18 MC, \$50. Cook, Alb. 9-3036.
- '51 HENRY J., 2-dr., new tires & overhaul. Lobato, Alb. 6-1687 after 5:30.
- '50 FORD V-8 sedan, 2-dr., OD, heater, good tires, \$325. Burton, Alb. 3-0317.
- WINCHESTER model 70, 30-06, Weaver K-4 scope w/quick detach mounts, \$115. deep fryer, \$8. Jones, 3135 39th Pl., Base.
- HOUSE TRAILER, 24' National, on location at Bluewater Lake, will deliver, best offer. Meahl, Alb. 5-0674.
- DRESSER & BED with spring & mattress. Hansen, ext. 23166 after 5.
- FLUTE, Reynolds, nearly new, \$120. Dunlap, ext. 35143.
- '41 DESOTO 6, 4-dr., R&H, best offer or trade for shop tools; washer, Maytag, wringer, \$30. Huchmala, Alb. 3-9442 after 5:30.
- POWER SAW, 10", \$100; Ladder, 16' \$7; Western relics. Sadlu, Alb. 4-0256.
- SOFA, \$50; 2 end tables, \$15; 2 table lamps, \$10; 2 pr. lined drapes, \$10. Fullerton, Alb. 5-7092 after 5.
- '50 FORD V-8, 2-dr. sedan, \$375 or best offer. Smatana, Alb. 9-3669 after 5:30.
- RUG, Bigelow, wool, 9 x 12, royal blue, w/pad, \$35; bicycle, boys' 24", \$8. Roper, Alb. 6-0789.
- REFRIGERATOR, Admiral, 7', \$25. Wilson, Alb. 6-1847.
- TRAILER, 2-wheel, spare tire, leveling jack, \$75; bicycle, boys' 20", \$18. Mitchell, Alb. 6-6550.
- BABY CRIB, 6-yr. size, wetproof mattress, \$17. Lowery, Alb. 9-5177.
- AIR CONDITIONER, cools approx. 900 sq. ft., nearly new, fittings, copper tubing, cost new \$160, \$80. Coleman, Alb. 5-7480.
- NEUCLEOMETER, Deetron, new, make offer. Kirtley, Alb. 6-0637.
- DINETTE, chrome, 4 chairs, \$20; twin bed spring & mattress, \$17.50; '54 Plymouth, \$1095. Thomas, Alb. 9-3838.

- '53 ENGLISH FORD, 4-dr., 6 cyl., W/W tires, heater, \$700. Treon, ext. 45276.
- BEDS, 2, with innerspring mattresses, springs, steel platforms, 1 extra long, \$35. Keever, Alb. 6-6521.
- AUDIO OSCILLATOR, 20 - 80,000 cycles; Power Supply, electronic regulation, 2 variable DC outputs, in cabinet, both \$45. Sinnott, Alb. 9-1300.
- 2-BR. HOME, adobe, 4 blocks from University, will trade equity for all-metal trailer. Chapin, Alb. 2-6429.
- DINETTE, oak, 6-pc., \$35; Cameras, "Clipper", case, \$5 "Duaflex", flash attachment, \$8; building blocks & caps, \$3.50. Hansen, Alb. 6-1216.
- 2 BUNK BEDS, army type, w/springs, \$11. Perea, Alb. 5-6902.
- TRAILER, 2-wheel, steel bed, spare tire, bumper hitch, \$20 or trade for power tools. Farmer, Alb. 5-7279.
- WATER HEATER, electric, National, 30 gal. capacity, cabinet type, \$60. McKenzie, Alb. 2-2738.
- WASHER, Maytag, w/wringer, automatic timer, \$30. Morgan, Alb. 5-9848 after 6.
- WATCH, 21 jewel, "Illinois". Kraus, Alb. 3-9589.
- '49 PACKARD, 4-dr., \$250. Blodgett, Alb. 3-1508 after 6.
- ADDING MACHINE, Remington-Rand, hand operated, \$100. Long, Alb. 5-7953 after 6.
- PLAY CAR, Chevrolet "Corvette", pedal driven, 2 speeds, \$50. Swayze, ext. 31241.
- BICYCLE, 24" \$20 or trade for 20". Pinnell, Alb. 5-7329.
- LAWN MOWER, used 2 yrs., \$10; Washer, Bendix Economat, make offer. Schuknecht, Alb. 4-3501.
- MOTORCYCLE, '50 Harley-Davidson, 125, good tires, new windshield & saddlebags, \$150. Wood, Alb. 6-0545 after 6.
- '53 DODGE Meadowbrook, 4-dr., R&H, leaving town, make offer. Kaspar, ext. 47287.
- IRONER, MW, nearly new, w/stand, \$35. Fisher, Alb. 7-9193.
- WASHER, Westinghouse Laundromat, make offer. Fry, Alb. 9-3067.
- WASHER, Bendix automatic, \$30. Mitcham, ext. 41173.
- OUTBOARD MOTOR, Sea King, 5HP. Brock, Alb. 6-5775.
- HI FI SPEAKER, 12" GE #1201-D, 6 Cu. Ft. bass reflex enclosure, \$29.95. Bircher, Alb. 5-0332.
- 17" TV, Hoffman, table model, blond, phono jack, \$65. Reimholz, Alb. 9-5107.
- FOR RENT—**
- TWIN BEDROOM, w/private entrance. Andrews, Alb. 6-3256.
- 3-BR. HOME, ½ acre land, N. 4th, \$55. Gabaldon, Alb. 4-0286.
- 2-BR. HOME, newly decorated, close to schools, bus, shopping. Thompson, Alb. 9-3416.
- 4-RM. HOUSE, furnished, W/B fireplace, modern, N. valley, \$65. Marshall, Alb. 4-1020 after 6.
- 2-BR. HOUSE, \$70. Martinez, Alb. 9-1918, 9529 Claremont NE.
- HOUSE TRAILER, modern, screened porch, no pets. Sloan, Alb. 5-0033.
- WANTED—**
- RIDE from 4119 Central NE to 880. Langston, ext. 20239.
- RIDE or form car pool from vicinity of Bridge & Sunset SW to 840. Charlotte Morrow, ext. 31256.
- RIDE from 2700 block Rio Grande NW. Graves, Alb. 4-1460 after 5:30.
- OLD RIFLES & pistols, any kind, cash or trade. Smitha, Alb. 9-1096.
- RIDE from 515 Girard SE to 894. Rosemary Morrissey, Alb. 7-9683.
- RIDE from 321 Wellesly NE to So. parking lot or vicinity of 894. Barbara Henderson, ext. 33141.
- TRICYCLE for 3 yr. old girl. Summers, Alb. 5-1016.
- COUNTRY HOME for 2 yr. old male long hair dachshund, gentle disposition. Allen, Alb. 5-7048.
- 2 DRIVERS for 4 or 5 man car pool, vicinity Eubank to 880. Henderson, Alb. 9-1458.
- RIDE from vicinity of 400 block Cornell SE to 802. Easley, Alb. 3-7660.
- DRIVER for 4 man car pool from vicinity San Mateo, Bell, Katherine SE to 880. Samuelson, ext. 27142.
- RIDE, from Yale & Coal to 834. Marie Dillon, ext. 20159.
- DRIVER for car pool from vicinity Carlisle Village to 802. Nylander, Alb. 6-7437.
- RIDERS to join car pool from vicinity Carlisle Plaza to 802 or 880. Hale, ext. 27150.
- UPRIGHT PIANO, Moser, Alb. 5-9429.
- TYPEWRITER, Royal, standard, may consider trade for '46 Chevrolet Club Coupe. Bailis, Alb. 6-6686.
- CAMERA, 35 mm, view, range finder, preferably Argus C3. Miller, Alb. 5-1324.



WIDE TECHNICAL BACKGROUNDS of nine Sandia employees are utilized in the training program of this new unit of the 9865th Air Reserve Squadron, R & D Flight D. First Row, left to right, are Maj. L. H. Minnear 5222, Lt. K. Lee, Capt. W. S. Halpin 5133, Capt. R. H. Richards 1243, Lt. H. M. Richard-

son 5111. Standing are Capt. H. S. Bluestein 2532, Capt. O. L. Basher 1283, Lt. Col. M. Causey, Lt. Col. R. M. Ancell, Lt. W. R. Barton 5144, Lt. Col. K. G. Overbury 1651, program coordinator, and Lt. Col. N. B. Charles 5122, commanding officer of the group. Members study Air Force technical subjects.



HIGH FIDELITY—A bookcase filled with intricate electronic equipment is used by Clair Hicks, 1444-1, to help produce the true tones of "live" music for hi-fi fan Bingo.

Music At Its Best

Clair Hicks, Expert, Says Hi-Fi Fan Can Do-It-Himself For \$100 and Tells How

When "high fidelity" sound was an engineer's plaything years ago, Clair Hicks, an electronics engineer in 1444-1, had already assembled the components he needed, was piping them through the first "multiple speaker" in the Albuquerque area.

Clair, a Sandia employee since May 1946, rates the amazing growth of high fidelity music and sound reproduction in the home as one of the major post-war triumphs of electronic science. It is a growing, thriving industry, and its short life has been marked by incredible scientific advances, he says.

True fidelity reproduction is indistinguishable from "live" sound, music in the "raw." True fidelity is approached only at great costs, and can never be attained in absolute perfection. It's the reproduction of sound which comes closest to actual "in the person" music.

Startling Sensations

If you like concerts, opera, jazz sessions, you're a potential high fidelity convert. And you're in for some startling sensations when you hear symphonic or jazz classics play-

ed through a "hi-fi" system.

Do-It-Yourself

Waves of rolling bass sounds, the tinkle of triangles, flare of French horns fill a room with music; each instrument, despite its position in the orchestra, is clearly discernible among the others.

Clair Hicks, who animates his conversation with classic hi-fi terminology: "woofers, frequency modulation, squawkers, tweeters, crossover networks," maintains that any high fidelity set of components within a given price range will furnish faithful sound you can afford.

In the den of his home, Clair has a bookcaseful of components: a record changer, a pre-amp and equalizer he built himself, an FM tuner, AM tuner, all of which are DC operated. He constructed the unique multiple speaker five years ago, as he did all of his components, says the speaker cabinet carpentry work was the most difficult "do-it-yourself" he has experienced. The speaker enclosure holds a variety of speakers mounted in a folded-type horn; it employs the walls of a room as an acoustic chamber.

Hicks feels that Sandia high-fidelity fans can "do-it-yourself" for about \$100.

And no mass manufactured high fidelity unit can match the low price

Scientists Staff R & D Flight in USAF Reserve

To best utilize training, experience and ability of Sandians in the Air Force Reserve system, a new unit, Research and Development Flight D, was formed recently in the 9865th Air Reserve Squadron.

Nine Sandians participate in the training program of the Flight, headed by Lt. Col. B. N. Charles, 5122, commanding officer. Lt. Col. K. G. Overbury, 1651, is Program Coordinator.

The Flight reports administratively to the Continental Air Command and to the Air Research Development Command for technical training. Currently, the Flight members are learning the functions and responsibilities of the ARDC in national defense.

The training aim of the R & D Flight is to keep its personnel up to date in technical subjects of interest to the Air Force, utilizing the wide technical background of the Reservists.

Any technical trained Air Force reservist is eligible for this training and by participating can maintain his Reserve obligations as well as supplement his civilian knowledge.

range or performance of the Sandian's home workshop custom jobs, Clair says. Such high fidelity can be reached at relatively low cost; beyond that point, only the expenditure of large sums of money brings additional improvement.

The hi-fi fan keeps all the units of his set compatible: FM tuner, pre-amplifier and amplifier, speaker. "They're all from the same price range"—price is a good, though not infallible standard, says Hicks—"because a true reproduction system can not be better than its worst or cheapest or least able performer."

Kits Available

Special kits are an excellent means of "do-it-yourself" hi-fi construction, Hick says.

Simplest, easiest way to break in to "hi-fi" is the purchase of an FM tuner, amplifier, and good speaker enclosure. "This way you can tune in on FM radio station KHFM, operated by Charlie Reed, communications engineer in 5211. Later you can add the record changer or turntables, AM tuner, tape recorder you need."

Clair Hicks has been a hi-fi enthusiast since he graduated from John Brown University with the BS degree in radio engineering. He holds a commercial first class ticket, is qualified to operate any transmitter in the United States.

He lives with his family at 1316 Guaymas NE, keeps high fidelity music bouncing through the house all the time.

Clair believes that hi-fi is electronics' contribution to better living. "Which incidentally," he adds, "includes piping your TV sound through a hi-fi system too. You're in for some exciting TV viewing."