



SANDIA CORPORATION

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

# LAB NEWS

VOL. 17, NO. 25, DECEMBER 3, 1965

## Department 9310 Studies Safety Of SNAP-19

Sandia's Aerospace Nuclear Safety Department 9310 is developing a safety evaluation program for SNAP-19 isotope powered generators for the Nimbus B weather satellite program.

The SNAP-19 generators will be built under a \$2.4 million contract extension the AEC recently awarded the Martin Company of Baltimore, Md. Sandia, the principal AEC contractor for aerospace nuclear safety, evaluates the safety features of SNAP (Systems for Nuclear Auxiliary Power) units under launch, controlled flight and re-entry conditions to assure that no safety hazard exists.

Nimbus B, the first meteorological satellite to use nuclear power, is being developed by the National Aeronautics and Space Administration. A pair of SNAP-19 30-watt generators will be on board the satellite when it is launched into space in 1967.

An inert isotopic generator similar to the SNAP-19 was subjected to a re-entry flight demonstration test conducted by Sandia on Oct. 9, 1964. This prototype generator was designed to disassemble early on its re-entry and expose the fuel capsules to a sufficient amount of re-entry heat to permit burnup. Data obtained from the flight demonstrated that the generator disassembled as predicted. Data from this test is used in evaluating the SNAP-19 behaviour during re-entry.

The recently announced contract extension calls for Martin to produce two isotope-fueled flight generators and a second pair of fueled units as backups. Additional units will be unfueled, electrically heated generators for use in systems qualification and reliability testing.

Fueled units will contain plutonium-238. Spontaneous decay of the isotope fuel will generate heat inside its tightly sealed container. The heat will be converted directly into electricity by an assembly of thermoelectric elements.

Each generator weighs 30 pounds and is 11 inches high and 22 inches in diameter. Each has a design lifetime of five years. Electrical energy for the Nimbus B spacecraft will be derived from solar cells with nuclear generators being used on an experimental basis to determine whether such generators can alternately be used as the sole power source.

Aerospace Nuclear Safety Department is reviewing the design criteria and test results obtained by Martin to chart Sandia's safety evaluation program for the SNAP-19.

## Sandians Help in Christmas Project for South Viet Nam

Two Sandians are local chairmen for the national "Operation ACTT" drive which will bring Christmas gifts from Americans to the South Vietnamese people. Al Winklejohn (9313) is the Jaycee chairman for the local drive, and Earle Chapman (2422) is chairman for the Young Republicans. Young Democrats chairman is Tim Glidden (UNM). The three organizations are sponsoring the drive nationally.

Operation ACTT (American Christmas Train and Trucks) calls for a special train to leave Philadelphia and pick up boxcars of gifts along the route to San Francisco where the items will be loaded for shipment by boat to South Viet Nam. Trucks provided by Jaycees, Young Democrats, and Young Republicans will bring the gifts to loading points for the train.

Once in Viet Nam, the gifts will be distributed to the people by U. S. troops.

Needed for the project are such things as medical supplies, school supplies, children's unbreakable toys, personal hygiene items, and other gifts. If you wish to contribute, take your gifts to the Rio Grande Steel Company warehouse, located at 520 Haines NW, during the week from 3 to 6 p.m. Warehouse hours on Saturday are from 9 a.m. to 6 p.m. and Sunday from 12 to 6 p.m.

The boxcar load of gifts is scheduled to leave Albuquerque Dec. 11.

# Preliminary Design Complete for New Sandia Plasma Arc Testing Facility

Preliminary design of the plasma arc test equipment for Sandia Laboratory's newest environmental test facility, High Enthalpy Arc Tunnel (HEAT), was completed last week by the Stokes Advanced Systems Division of Pennsalt Chemicals Corporation. The company worked from specifications and design criteria prepared by M. H. Gubbels of Facility Engineering Division 7311.

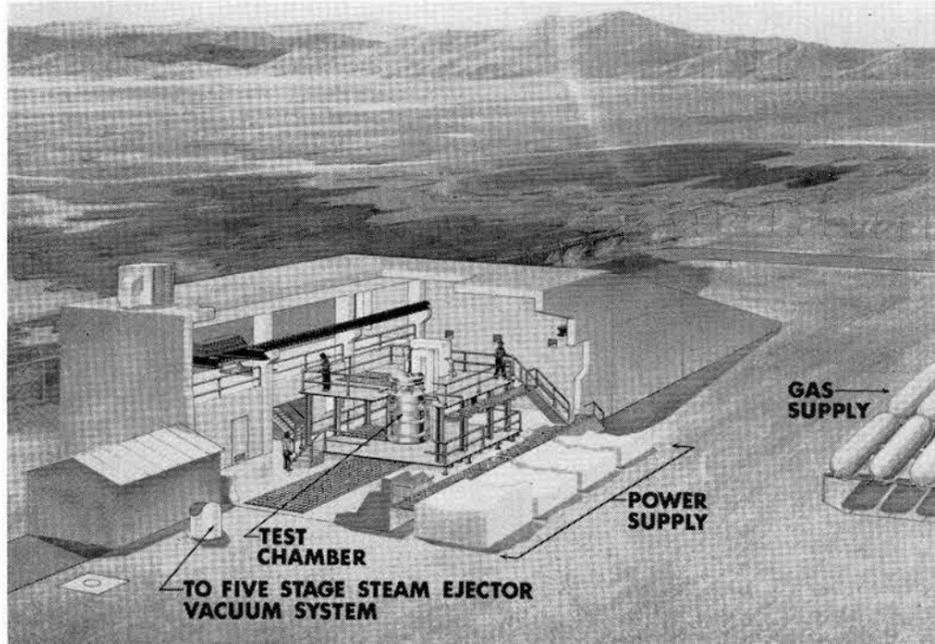
The HEAT facility will be essentially a very high temperature supersonic wind tunnel enabling the testing of materials or scale models to conditions simulating re-entry of a space vehicle into the earth's atmosphere. Its testing capabilities will rival the most advanced facilities in the country and, in addition, Sandia's HEAT facility will be uniquely capable of testing radioactive or toxic materials on a routine basis.

The HEAT facility design was tailored for the needs of Sandia's Aero Projects Organization 9300 but was made as flexible as possible for other Sandia testing use. It is anticipated that the facility will be made available to other AEC and government contractors involved in aerospace development projects.

Aerospace Nuclear Safety Department 9310 will be the primary user of the HEAT facility. Since March 1962, the department has been engaged in a program of aerospace nuclear safety studies in support of the AEC's Division of Reactor Development Engineering and Test Branch. (Activity is now under Division of Space Nuclear Systems.) The department conducts a four-phase activity aimed at defining and solving safety problems associated with space applications of nuclear power supplies and nuclear propulsion systems.

The work has involved applied research and development activities, ground testing, flight testing, and independent safety assessments of proposed systems. The HEAT facility will enable the exposure of nuclear fuels and other materials under controlled laboratory conditions to high temperatures, velocities, and other re-entry phenomena.

Test gases (nitrogen, simulated air, or argon) will be stored at 3000 psi in gas bottles in an array outside the main building. The test gas will be pressure controlled and fed to a plasma arc generator where it will be heated by a DC electrical arc capable of dissipating 3,000,000 watts of energy into the gas and thus



ARTIST'S DRAWING shows cutaway view of new HEAT facility planned for Sandia Laboratory. It will create the temperatures and velocities of a re-entry environment. The HEAT facility will be located in Area III adjacent to the Radiant Heat facility. Preliminary design work for the plasma arc test equipment is complete and the project is now moving into fabrication of the equipment. Total construction costs will be about \$2.5 million.

raising its temperature to a maximum of about 20,000°F.

The high temperature gas will then be expanded through a converging-diverging nozzle to produce a supersonic test stream, maximum velocity about 21,000 feet per second.

The plasma generator will be supplied with several supersonic nozzles to blanket a range of enthalpies from 2000 BTU/lb. to 20,000 BTU/lb. (Enthalpy is a thermodynamic unit of measurement of the specific energy level of a substance. In the case of the HEAT facility, an enthalpy of 20,000 BTU/lb. corresponds to a re-entry vehicle velocity of 31,400 feet per second.)

The test chamber will be large enough to contain several probe-mounted test items or instrumentation sensors. The test probes may be remotely operated for insertion into or retraction from the gas stream. The double walled, water cooled test chamber will be provided with photography ports, access ports, and provisions for washing down the tank after

testing to remove radioactive or noxious compounds.

A five-stage steam ejector vacuum system will provide the extremely low pressures required on the downstream side of the supersonic plasma flow. The system will consist of five stages of ejectors with steam condensers after the last two ejectors. The spent working gas will be compressed to ambient outside pressure by the ejector system and then exhausted through a stack to the atmosphere. The 55,000 pounds per hour of steam required for the ejectors will be supplied from steam generating equipment which will be housed in the facility's mechanical equipment building.

Cooling water required by the condensers will be provided by a 300,000-gallon water storage reservoir and cooling tower adjacent to the equipment building. The steam condensate will be temporarily stored in a 5000-gallon holdup tank and then trucked away if determined to be hazardously radioactive. Otherwise, it will be disposed of in seepage pits.

The HEAT facility will be located in Area III adjacent to the Radiant Heat facility. The reinforced concrete main building will contain approximately 6400 square feet. A prefabricated metal building containing 2400 square feet will house the steam generating equipment.

Now that preliminary design is complete, a contract is being issued to Pennsalt for the construction of the test equipment. Pennsalt will install the equipment and guarantee its performance. Building construction will be by other contractors following standard AEC construction practices.

R. F. Armstrong (4543) is the Plant Engineering Department project engineer.

Complete facility is expected to cost \$2.5 million. It is scheduled to be operational by March 1967.

## Two Sandians Appointed to National Legion Posts

Announcement was made recently by the American Legion National Executive Committee of the appointment of Joe Mahboub (3242) and Flavio Gonzales (4212) to national positions with the organization.

Mr. Mahboub, commander of Albuquerque Post 99, will serve on the National Rehabilitation Commission.

Mr. Gonzales, first vice commander of Post 13, will serve on the National Committee on International Affairs.

## Sandians Teach High School Classes While Teachers Attend Seminars

Fifty-six Sandians are teaching mathematics classes in Albuquerque high schools today while the regular teachers are attending a Mathematics Seminar at Sandia. Last Wednesday, a similar number of Sandia's technical staff switched places with science teachers who attended a Science Seminar here.

The programs were arranged by Employee Training and Education Division 3132 as part of an effort, supported by the Atomic Energy Commission, to encourage the pursuit of technical and scientific careers among the nation's students.

Purpose of the two Sandia seminars, attended by a total of 112 local educators, is to stimulate students through their teachers to excel in technical subjects. Encouragement of this kind could help in providing a local source of competent employees, assist in developing an ever-improving school system, and aid in the development of the nation's human resources. Studies have shown that the standard of living of a society is dependent largely on the degree of technology shared by the members of the society.

In their classroom presentations, members of the Sandia staff stressed practical applications of the science and mathematics subjects and served as "ambassadors" for the Company and as examples of professionals in scientific careers.

The Mathematics Seminar today is featuring talks by M. J. Norris (5260), "The Role of Mathematics at Sandia Corporation"; C. A. Trauth (5226), "Artificial Intelligence"; G. P. Steck (5255), "Probability and Statistics"; and J. A. Schatz (5256), "The Busy Beaver—An Introduction to Computability."

The Science Seminar Wednesday featured R. S. Claassen (5100), "The Role of Science at Sandia Corporation"; L. J. Vortman (5232), "Digging Harbors and Canals with Explosives"; M. M. Robertson (1122), "Systems for Nuclear Auxiliary Power"; N. C. Anderholm (9232), "Lasers"; and R. M. Jefferson (5224), "Reactors." The group of teachers also toured Sandia reactor facilities in Area V.

Wayne Trump and Frank Dausse of Division 3132 handled arrangements for the Seminars.

## Editorial Comment

Many times during the summer such comments as "the tourists cause the accidents in New Mexico" have resounded during the heavy traffic rushes in our city.

Recently, the New Mexico Highway Department compiled some statistics which bring the truth a little closer to home:

—89 percent of the drivers in all motor vehicle accidents in the state were New Mexico residents.

—74 percent of the drivers in fatal accidents were New Mexico residents.

—33 percent of the total mileage driven in the state was by non-residents.

—90 percent of all accidents occurred within 25 miles of the driver's home.

—The majority of accidents occurred between 3 and 7 p.m.

Automobile accidents are a major cause of death in the nation. Statistics do not convey the horror of dead bodies scattered along the roadside nor the pain and grief of the injured and the surviving families.

And we are kidding ourselves when we think it happens only to "those tourists."

## Unions, Military Liaison Groups Planning Big Christmas Projects

Sandia Corporation has long encouraged the idea of helping the needy at Christmas time in lieu of exchanging greeting cards with persons you see every day. Two of these organization-wide activities have become almost traditional.

The Military Liaison Organization's "Shoes for Kids" drive is well underway as is the United Unions' Christmas Party for the children of Riverview Elementary School.

Floyd Hursh (7522) is chairman of the "Shoes for Kids" drive, assisted by Al Hachigian (7513) and Richard Collins (7531). Last year members of Organization 7500 and other Sandians contributed \$360 which was used to purchase 93 pairs of shoes for needy youngsters attending Riverview Elementary School. The recipients were selected by Desi Baca, the school principal. In addition, the store where the shoes were purchased donated a pair of socks for each child. This year the shoes will be fitted Dec. 16 and the committee is hoping to purchase a similar number of shoes.

The charitable act involving probably the largest number of Sandia Laboratory employees is the annual Christmas party for the Riverview school children, sponsored by the United Unions—International Brotherhood of Electrical Workers, local 1988; International Association of Machinists, local 1689; and Office Employees International Union, local 251.

Large boxes have been placed in Bldgs. 802, 806, 836, 840, 880, 892, and 894 (and will remain until Dec. 10) for collection of toys for children from 6-12 years old. Members of the locals will match the gifts with children of suitable age.

On Dec. 16 the 320 children at Riverview

### T. B. Sherwin Accredited By Nat'l PR Society

T. B. Sherwin, supervisor of Public Information Division 3431, and Richard G. Elliott, director of Division of Information, AEC-ALO, were among the first 425 public relations representatives to be accredited under the Public Relations Society of America's professional accreditation program.

The initial list of Society members who met the rigid eligibility requirements for accreditation was announced at the Society's annual meeting in New York City on Nov. 19.

Purpose of the accreditation program is to raise professional standards and improve the practice of public relations by accrediting PRSA members who, by passing examinations and fulfilling prescribed standards of character and reputation, have demonstrated a high level of competence in the profession.

Ted joined Sandia in May 1949 and has been in the public relations organization most of that time. Before coming to Albuquerque, he was administrative assistant to U.S. Sen. Robertson of Wyoming for two years. He is a past president and founder of the New Mexico Chapter, PRSA, and was recently re-elected a director.

Mr. Elliott has been a public relations official with the AEC since February 1950. He was the founding president of the New Mexico PRSA and has served as president of the Rocky Mountain District of PRSA, receiving a national citation for his work.

will be treated to Christmas dinner at the school cafeteria, and on the following Saturday the annual union-sponsored Christmas party will be held starting at 1:30 p.m. In addition to toys distributed by Santa Claus, each child will receive a sock stuffed with peanuts, candy, oranges, and apples, and there will be ice cream and cookies for all.

Coordinators for the project are A. J. Fisher (4252-1), T. T. Kirtley (4234-3), and B. L. Stewart (2522).

Tony Chavez (4631-2), chairman of the publicity and entertainment committees, reports a need for a magician, novelty band, singers, or other entertainers for the Christmas party. Tony can be reached evenings at tel. 255-6155.

## Retiring . . .



M. L. Shoemaker, a Sandia employee for more than 16 years, retired Nov. 30.

He was associated with packaging organizations during the entire time except for assignment to Test Planning and Evaluation Division

1512 shortly before he retired.

Mr. and Mrs. Shoemaker will remain in Albuquerque at 316 Richmond Dr. SE for the present. Mr. Shoemaker has had a life-long interest in hunting and fishing.

## American Flag Pins Worn by Sandians

Tiny American flag lapel pins have received widespread distribution among Sandia Laboratory employees the last couple of weeks. The pins have been handed out mainly by security inspectors, many of whom are members of the American Legion which is sponsoring the "Show Your Colors" drive nationwide.

Other Sandians who are Legionnaires helped give away the miniature flags at University Stadium last Saturday and during a patriotic rally on the UNM campus Nov. 21.

Wearing of the lapel pins has been termed a positive, public display of faith in the U.S. Government.

## Events Calendar

Thru Dec. 5—Albuquerque Little Theatre production "A Majority of One," 224 San Pasquale SW.

Dec. 5—South Peak via Embudito Trail, N. M. Mountain Club. Leaders George Steck (5255), tel. 299-2313, and A. H. Zackmann, tel. 299-6871.

Dec. 7—Albuquerque Civic Symphony with soprano soloist Louisa De Sett. Civic Auditorium.

Dec. 10—United Nations Human Rights Banquet, UNM Student Union. For reservations: UN Gift Shop, Old Town, tel. 243-4950.

Thru Dec. 12—Modern version of "Antigone" at Old Town Studio, 1208 Rio Grande NW.



KNIFE-LIKE RIDGE provides a steep route up the Matterhorn. Sheer cliffs drop off from either side. Bill Stamm and his guide made it up from the 10,000-foot level to the 14,700-foot peak in four hours. The cross in the foreground is in Italy, the peak in Switzerland.

## Sandian Climbs Matterhorn During Two-Week Vacation in Europe

The Matterhorn is the most famous mountain in Europe, rising some 14,700 feet to tower among the Swiss Alps and form part of the boundary between Switzerland and Italy. One hundred years ago, the mountain was first climbed. An Englishman named Wymple inched up the sharp, steep ridge on the Swiss side.

Since then, hundreds of people, including William F. Stamm (4543), have climbed the same route.

Bill, a native New Mexican, had always wanted to climb the Matterhorn. He had climbed a number of peaks in New Mexico and helped to organize the New Mexico Mountain Club back in 1952.

"This summer," he said, "looked like the time. I was 51 years old and a little past the age of daydreaming. It was either do it now or forget it."

Bill flew to Europe in early August and traveled to the Swiss village of Zermatt. He engaged a guide and started the climb. First came a cable car ride from Zermatt to the 7000-foot level of the mountain and then a hike to the 10,000-foot level. Here Bill spent the night in a primitive hut used by climbers.

The guide roused him out of bed at 3:45 a.m. the next morning and they started up the ridge in the dark, using flashlights. They made the peak at 8 a.m.

"It was a fantastic experience," Bill said. "We were lucky to have clear weather and we could see for miles. A couple of Air Force jets flew by us in the valley below and we were looking down at them. We could see three countries. We stayed on top about 15 minutes. It was very cold."

Later, when Bill was writing about the



BILL STAMM (4543) stands on top of the 14,700-foot Matterhorn with a Swiss guide (right). Bill climbed the famous mountain Friday, Aug. 13.

climb, he realized he had made it on Friday, Aug. 13. He was not aware of the day until he dated the letter.

Bill spent two weeks in Europe. He took his mother to visit the Louvre and the Versailles Gardens in France, and the Sistine Chapel, the Colosseum, the Roman Forum, Tivoli Gardens, and the Vatican in Rome. They also visited Geneva, Zurich, Luzern, and Bern in Switzerland.

"The trip was too short," Bill said. "Some-day I hope to go back, but I doubt if I'll make the climb again."



Marilyn Little (1310)

### Take A Memo, Please

Amid the flurry of plans for the forthcoming holiday season, take time out to think about safety. It could be to your benefit.

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LAB NEWS

DECEMBER 3, 1965

## SANDIA CORPORATION LAB NEWS



ALBUQUERQUE, NEW MEXICO • LIVERMORE, CALIFORNIA

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# Marv Glaze Appointed Advisor on High School Vocational Education



Marv Glaze (8243) has been appointed a member of the Advisory Committee to the Business Education Department's Vocational Education Program at Livermore High School.

The program is established under the Federal Vocational Education Act of 1963 which allocates money to each state for the development of education in such vocations as office training, home economics, and agriculture. Each school district applying for funds must justify its application and the board of education is required to match the Federal money.

Primary responsibility of the Advisory Committee is to act as counsel in establishing the office machines curriculum and the kinds of associated equipment provided by the high school. An attempt is being made by the school to offer a more extensive business machines course to better prepare students for occupations in the community.

Committee members include representatives from various business firms in the vicinity.

Marv has worked at Livermore Lab-

oratory as a division supervisor in the accounting and financial, personnel, and purchasing organizations since transferring from Sandia Laboratory in Albuquerque in 1956. He received his BBA degree in accounting from the University of New Mexico.

## Livermore Notes . . .

Jack Foster (8162) addressed approximately 240 freshman students of an engineering orientation class at the City College of San Francisco Nov. 24. He spoke on "Engineering as a Profession," and presented as part of his speech the Sandia film, "Clean Air Is a Breeze."

Jack recently received his PhD degree in engineering sciences from the University of California at Berkeley. He is a registered professional engineer in California and Oregon and serves as secretary of the Mt. Diablo Subsection of the San Francisco ASME.

Technical illustrator Evelyn Bachman (8233) demonstrated her technique of characterizing people and attitudes in color as part of art-in-action demonstrations featured at the Livermore Art Association's ninth annual Fall Festival of Art, Nov. 13-14.

Don Bohrer (8153) shot a net low score of 64 to win the first place trophy in the Nov. 20 Sandia Employee Golf Club tournament. The straight handicap tourney was played at the Elkhorn Golf Course in Stockton.

In the first flight of the "best ball two-some" event, "Gabe" Gabrielson (8144) and Kermit Cooper (8252) tied with Gary Beeler (8153) and Cliff Erickson (8252) with net scores of 64. Don Bohrer (8153) and Pat O'Brien (8161) won the second flight of this event with a net score of 61.

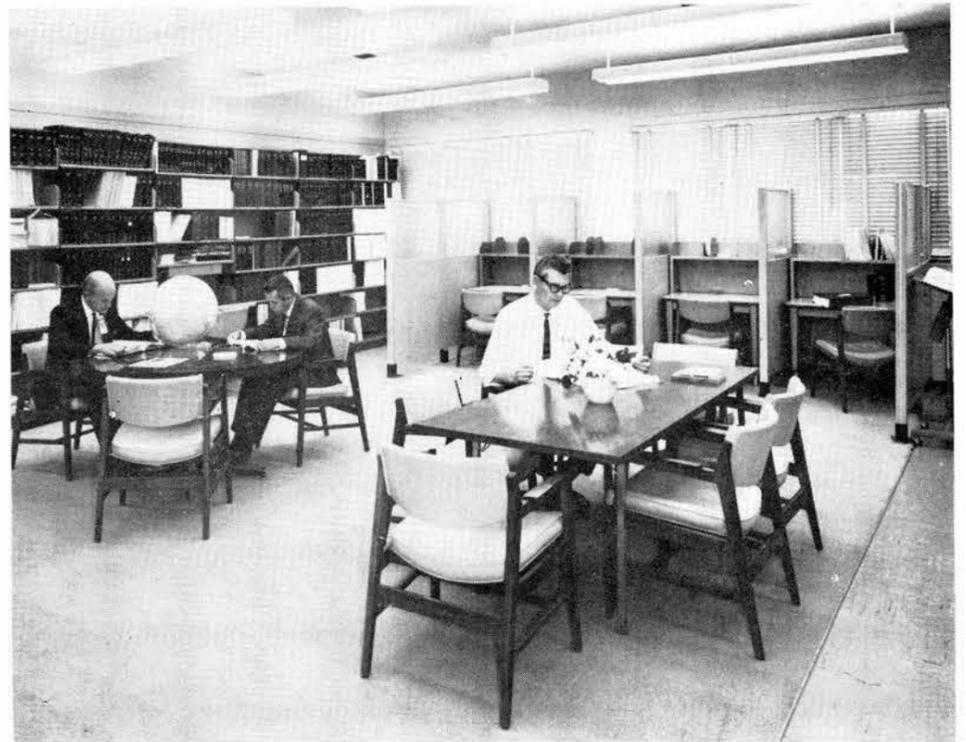
The next SEGC tournament will be held at Dry Creek Ranch Golf Course in Lodi Dec. 18. Those interested in participating may contact Elmer Smith (8162), ext. 2738; Tom Dadian (8115), ext. 2318; or Joe Genoni (8232) ext. 2433.

As a Christmas gift feature, Frontier Village near San Jose is offering free admission during the month of December. The park is scheduled to be open weekends and daily starting Dec. 20. Santa Claus will be on hand every day through Dec. 24. Sandians holding current membership identification cards will also be entitled to the usual discounts on rides. New membership cards may be obtained from Jim Henderson of Benefits Division 8211.

LEO GUTIERREZ, Director of Systems Development at Livermore 8100, was photographed and interviewed recently by John Wright, official photographer for The Diocese of Oakland. Wright is featuring a picture story on people of the Livermore Valley in the Diocese's publication, "The Catholic Voice." The story will be one of a series on the Valley.



# LIVERMORE NEWS



NEW LIBRARY READING ROOM is used by engineers (l to r) Dave Bray (8123), Friend Skinner (8123), and Dick Cline (8124). Study carrels line the back of the room. A smaller reading room is also available in the classified reading area.

## New Look and Improved Service For Livermore Technical Library



AT BOOK RETURN STAND (l to r), librarian Beryl Hefley and reference librarian Mary Ellen Jacob discuss charging procedures with library assistant Ramona Anderson. The expanded bookshelf area can be seen in the background.

Changes to the technical library facilities at Livermore Laboratory, which have been underway during the past few months, are now completed.

Extensive alteration and rearrangement has brought about more efficient operation of the library and has more than doubled the shelving capacity. The shelving footage has increased from 1170 to 2930 feet.

Another improvement is the added space for reference work. Two new reading rooms feature study carrels and provide separate areas for the search of classified and unclassified material.

Bill Jamieson, supervisor of Technical Library and Document Control Division 8232, points out, "The library attempts to provide employees with the most up-to-date information available pertaining to their current job and related fields of interest."

To better serve the user and to cope with the ever increasing flow of new information, the library has placed its 8500 books and approximately 40,000 reports on an automated system. A master accession record contains all the cataloging data pertaining to each document or book and merges author, subject, and permuted title into a dictionary catalog for cumulative listing. This accession record provides the basis for periodic accession lists and associated indexes, including the monthly SCAN (Sandia Corporation Accession News). Also available are listings of reports produced by an organization and listings of translations by subject.

The Livermore library is presently experimenting with an SDI (Selective Dissemination of Information) program that will further aid the employee. Using a computer to compare words and phrases which describe an organization's field or fields of interest with words and phrases which describe document content, a list of titles is obtained, tailored specifically to a particular interest profile.

## Welcome Newcomers

Oct. 9 - Nov. 18

California	
Janice L. Bjorkman, Livermore	8211
Richard H. Campiotti, Livermore	8232
Dorothy J. Clark, Livermore	8232
Norman C. Colcleasure, Campbell	8222
Annabelle Erickson, Livermore	8211
Howard C. Feemster, Orangevale	8115
Henry Lucas, Fullerton	8115
Marjorie A. Mederios, Livermore	8211
Judith M. Shirer, San Leandro	8211
Shelia G. Signor, Pleasanton	8211
Virginia A. Swire, Livermore	8211
Returned from Leave	
Donald W. Sadler, Livermore	8223
Transferred from Tonopah	
Richard R. Petrini	8124

## Christmas Dance One Week Away

Only one week remains to get your tickets to the 1965 Sandia Christmas Dance. A ticket, price \$4, covers the dance, a chance to win several valuable door prizes, and breakfast served at 1 a. m. following the dance.

The dance-breakfast, open to Sandia and LRL employees and their guests, will be held Friday, Dec. 10, at the Castlewood Country Club in Pleasanton. The club's Florentine and Garden rooms have been reserved, and Maury Wolohan and his orchestra will provide music for dancing starting at 9 p. m.

For tickets or additional information, contact Doris Guntrum, Bldg. 911, Personnel; Jim Henderson, Bldg. 912, Rm. 117; Mike Ferrario, Bldg. 912, Rm. 212; Vivian Lenz, Bldg. 913, Rm. 114; Pat Tarp, Bldg. 914; or Mary Lou Taylor, Bldg. 916, Rm. 105.

## 15th VEEP Workshop Set Dec. 6-17 at Livermore Laboratory

The 15th VEEP (Value Engineering Education Program) workshop will be conducted Dec. 6-17 at Livermore Laboratory, according to Elmer Devor, supervisor of Value Engineering and Cost Reduction Division 2563. Both Sandia and Lawrence Radiation Laboratory personnel will attend the 44-hour workshop. The work will be divided between workshop and lecture activities.

Participants will be assigned to project teams. The teams apply value engineering disciplines to various pieces of hardware or procedures in an effort to achieve economy without compromising reliability, quality, or safety.

Mr. Devor and J. M. Hueter (2563) will conduct the workshop. This will be the fourth VEEP workshop conducted at Livermore.

## Events Calendar

Dec. 16—Sixth lecture, LRL Lecture Series, "The LRL Weapons Program," A. C. Haussamann, Associate Director for Military Application, LFL Auditorium, Bldg. 111, 8 p.m.

## Congratulations

Mr. and Mrs. Bob Leonesio (8122), a daughter, Deborah June, Nov. 22.

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PRIZEWINNERS—Claudine Sproul (3428) and Norma Carlson (7216) display crocheted afghans which took top honors in recent State Fair competition. The heavy wool pieces required as long as a year to complete.

## Sandians Produce Prize Winning Crocheted Afghans for Pleasure

Crocheting an afghan is not a job for the timid or the impatient. It takes nerve to tackle such a project, for the work is difficult and involves hundreds of hours.

Norma Carlson (7216) and Claudine Sproul (3428) have demonstrated that they have the skill and patience to produce prize winning work. Norma took the blue ribbon and Claudine the red one in recent New Mexico State Fair competition. More than 400 entrants competed in the needlework category.

Norma's winning afghan is a complex "spring bouquet" pattern containing more than 40 different colors of yarn. It took more than a year to produce, working evenings while watching television.

"You can do both," Norma says, "while you are crocheting the repetitive parts of the pattern. This is a mechanical operation and your speed increases with experience. The patterned parts of the afghan require more concentration. Some colors are added in the basic crochet stitch, others are overlaid with embroidery."

The afghans are judged on workmanship, suitability, and beauty of design. Judges are as critical of the "back" side of the afghan as they are of the front. Size of stitch and uniformity are also important points.

Norma has taken other honors at the State Fair in past years. In addition to

afghans, she crochets tablecloths, hair sets, and doilies. Her current work will be entered in the National Wool Needlework Contest in New York this month.

Claudine has been crocheting for about 10 years, dividing this hobby activity with knitting and ceramics. The prize winning afghan was crocheted in about eight months of spare time work, primarily performed at her desk a half hour before work and during the noon hours. This was the first time that she had entered anything in State Fair competition.

In the past, she has produced sweaters, various embroidered pieces, and other afghans. Currently, ceramics is taking most of her hobby hours. She is making ceramic ashtrays, Christmas trees, jack-o'-lanterns, and Santa Clauses as Christmas presents for her two grandchildren.

## Harold Maciolek on Stage With Current 'High Spirits' Production

"High Spirits," a musical version of "Blythe Spirit" by Noel Coward, opened last evening at the Albuquerque Light Opera Playhouse, 113 Alvarado NE. Harold Maciolek (1531) has a featured part in the musical comedy production.

Harold plays the male half of a couple "out on the town" and blunders into Madame Arcati's Inner Circle Coffee Shop, a weird place inhabited by beatnik types performing things like a "trance dance."

"We represent some sort of normalcy among some fantastic characters," Harold says. "It's a fun show and I enjoy the performing."

Harold has done other shows, performing with a musical comedy group in Milwaukee, Wis. He was also an adult member of the Albuquerque Boy's Choir several years ago. His musical background includes being a member of several choirs and choral groups.

His daughter, Karen, is a member of the chorus in "High Spirits" and assisted the choreographer in planning dances for the show.

"High Spirits" will be presented every evening through Dec. 11. Curtain time is 8 p.m. Reservations may be made by calling the box office, 255-0077.

## Supervisory Appointments



JOHN E. McDONALD to Manager of Materials and Process Department I, 1110, effective Nov. 16.

Since coming to Sandia in 1961, John has carried out research into properties of surfaces and interfaces (i.e., the chemistry and physics of such systems). He was promoted to supervisor of Inorganic Materials Science Division 1123 in June 1964.

John worked in the special weapons field while serving four years in the Air Force, part of the time stationed at Sandia Base or Kirtland AFB.

He has a BS degree in chemistry and a PhD degree in physical chemistry from Purdue University, and also taught freshman chemistry there for two years.

His memberships include Sigma Xi and Phi Lambda Upsilon, honorary societies, and the American Chemical Society.



EUGENE B. LOPP to supervisor of Electronic Design Section 8252-3, Drafting Division, effective Nov. 16.

Gene has been in drafting work since joining Sandia at Albuquerque in November 1951. He transferred to Livermore Laboratory in October 1959 where he has been assigned in both electrical and mechanical drafting organizations.

Before coming to Sandia, Gene attended the University of New Mexico for three and a half years, majoring in geology and engineering.

Gene served over two years with the U. S. Navy in the Aleutian Islands.



RICHARD K. TRAEGER to supervisor of Polymer Chemistry Division 1111, Materials and Process Department I, effective Nov. 16.

Dick has been in the same division since he came to Sandia two and a half years ago.

Previously he taught chemical engineering at the University of New Mexico for four years, and worked five years for B. F. Goodrich in Cleveland, Ohio, in chemical process development and design.

He has a BS degree in chemical engineering from the University of Wisconsin, MS degree in the same field from Case Institute of Technology, and ScD degree in engineering from the University of New Mexico.

Dick is a member of the New Mexico Society of Professional Engineers, is an officer of the Council of Technical and Scientific Societies, and is a registered professional engineer in New Mexico.



EDMUND G. FRANZAK to Manager of Electronic Components Department 1430, effective Dec. 1.

Ed first came to Sandia in 1952 and terminated three years later to continue graduate studies. He returned

during the summers of 1958 and 1960 to do solid state research. In July 1961 he rehired as a permanent employee and three years ago was promoted to division supervisor in Electronic Devices Department. His organization has been concerned with neutron tube development, neutron generation techniques, solid state physics, and physical chemistry.

For a year and a half, he was an assistant professor of physics at the University of Missouri.

Ed has a BS degree in electrical engineering from Fournier Institute of Technology, a MS in EE from the University of New Mexico, and both MS and PhD degrees in physics from Northwestern University.

His memberships include the American Physical Society and Sigma Xi honorary society.

## Six Sandians Serve On Local Princeton Committee

Six Sandians are serving on the Princeton University Albuquerque Schools Committee which provides liaison between interested high school students and the Eastern college.

The committee recently arranged for a meeting at the Coronado Club of 150 high school counselors, parents, and students, with Dale LeCount, assistant director of admission at Princeton University.

F. E. Bell (3453/3000) is chairman of the committee. He is assisted by L. J. Gorin (1413), J. S. Farnbach (1544), R. A. Hernquist (1443), S. C. Johnson (5612), and P. S. Schroeder (7261).



APPALLED by beatnik types in the Inner Circle Coffee Shop, Harold Maciolek (1531), right, represents normalcy in an otherwise "far out" scene. Harold, with Sylvia Judy (left) and John Sawyer (center), are part of the cast of "High Spirits" now playing at the Albuquerque Light Opera Playhouse.

## Sandia Authors

J. M. Peek (5121), "The Transition  $1s_{\sigma_2} - 2p_{\sigma_2}$  in  $H^+$  Induced by Collision with an Electron, Proton or Hydrogen Atom," Oct. 4 issue, THE PHYSICAL REVIEW.

D. K. Brice (5211), "Phonon Resonances Associated with Interstitial Atoms in Germanium and Silicon," Nov. 15 issue, THE PHYSICAL REVIEW.

J. G. Eberhart (1123) and J. E. McDONALD (1110), "The Graphical Estimation of Thermodynamic Properties," November issue, JOURNAL OF CHEMICAL EDUCATION.

T. W. H. Caffey (7211), "An Ultrasonic Transducer with a Biconical Pattern," June issue, IEEE TRANSACTIONS ON SONICS AND ULTRASONICS.

R. L. Davis (1432), "Design Formulas for High-Voltage Pulse Resistors," September issue, IEEE TRANSACTIONS ON PARTS, MATERIALS AND PACKAGING.

## Sympathy

To W. M. Howard (2562) for the death of his father in Florida Nov. 23.

To W. L. Dauphinee (2545) for the recent death of his mother in Massachusetts.

PAGE FOUR

LAB NEWS

DECEMBER 3, 1965

# Service Awards

20 Years



W. C. Elskes  
4511



Susana Derado  
3126



B. M. Garcia  
2524



D. J. Aquino  
2524



David Gonzales  
4221



W. C. Baldwin  
4514



J. B. Jajola  
4252



J. C. Barnes  
7333



J. T. Lannon  
9211



D. K. Campbell  
4623



M. J. Lew  
2524



T. J. Meloche  
4361



W. E. Miller  
2111



J. A. Perry  
8115



J. H. Richey  
4253



H. B. Sanchez  
4212



Mattilu Scoggins  
3321



G. A. Sievert  
4373



M. F. Stewart  
2523



L. L. Sumpter  
4221



G. R. Vaughan  
2254



Dorothy Washburn  
4611



R. E. West  
1422

15 Years

10 Years

Dec. 3-16

R. E. Adams 2451, W. J. Luce 4231, M. R. Silva 7521, C. E. Jackson 1514, A. E. Farmer 2422, R. E. Stewart 2522, C. A. Scheiber 1521, and Norma J. Taylor 3432.

Dec. 18 and 19 and an evening performance Dec. 18 of a pantomime version of "Sleeping Beauty." Santa Claus will make an appearance with gifts for the children. The performances will be held in Bldg. 204 on Sandia Base. Tickets are 25 cents for children and 50 cents for adults and may be purchased at the box office.

## Congratulations

Mr. and Mrs. J. R. Duran (4611), a daughter, Teresa Clara, Nov. 11.  
Mr. and Mrs. V. L. Harker (2213), an adopted daughter, Rebecca Ann, born Oct. 7.

## Sandians Invited to Open House Sunday At All Faiths Home

On Sunday afternoon, Dec. 5, from 2 until 5 p.m., an open house for all members of the community will be held at the All Faiths Receiving Home, 3001 Trellis NW.

Since the home was established in 1956, some 3500 children ranging in age from three weeks to 16 years have been given care for varying periods of time. It is a service to children temporarily separated from their home and parents for tragic reasons — abandonment, alcoholism, accidents, or illness. Until the founding of All Faiths Home, these children could only be housed at the Juvenile Detention Home or the City Jail.

For six years, the Home operated out of a private residence. Through the donation of an acre of land in 1962, a permanent Home was constructed and occupied in December 1962. The Home is not a member of the United Community Fund; it is wholly dependent on contributions from churches, organizations, businesses, and individuals.

L. D. Smith, Director of Advanced Systems Development 5600, is a member of the Home's Board of Directors.

He invites all Sandians to visit the Home during the open house Sunday. Arrangements to donate clothes or other gifts to the Home may be made by calling Mrs. Frances Cabeen, 255-9365. She is also available as a speaker to discuss the All Faiths Home activities with organizations and at group meetings.

## Sandia Speakers

C. E. Land (5142), "Applications of the Piezoelectric Properties of Ferroelectric Ceramics," University of New Mexico Electrical Engineering Colloquium, Nov. 22, Albuquerque; "Piezoelectric Ceramic Devices for Use in Linear Microcircuits," 1965 Ultrasonics Symposium, Dec. 1-3, Boston.

J. E. Schirber (5151), "Pressure and the Fermi Surface," Colorado State University Department of Physics Colloquium, Nov. 3, Fort Collins.

M. R. Madsen (7324), "The Integration of Mechanical Impedance Concepts into Vibration Test Specifications and Test Methods," San Diego Chapter of the Institute of Environmental Sciences, Nov. 10, San Diego.

J. C. Moody (2411), "New Standards for Old," Stated Meeting of the Membership, Franklin Institute of Technology, Nov. 17, Philadelphia.

C. J. McGarr (4600), "The Businessman and Politics," New Mexico Business and Manufacturers Association, Nov. 23, Santa Fe.

F. J. Perdreauxville (1541), "Identifica-



A HORSE galloped into the front end of this vehicle driven by Don Bliss (2562). Don suffered minor cuts and bruises but seat belts prevented serious injury.

## Seat Belt Saves Sandian During Front-End Collision

A horse galloped at full speed into the front end of Don Bliss' Greenbrier wagon on Rio Grande Blvd. about 7:55 Friday evening, Nov. 19. The horse was killed instantly. Damage to the front end of the vehicle was considerable. Don suffered only a few cuts from flying glass and some bruises on his legs, only minor injuries. (Don is supervisor of Tool Made Sample Engineering Division 2562.)

"If I had not had my seat belt buckled on tight, I would have been scraped off the pavement with the horse," Don said.

Don was traveling south near the 8500 block of Rio Grande NW when the accident occurred. A car had just passed him going north. As the headlights of the car passed, Don saw the horse galloping at an angle across the road. He hit the brakes hard but was unable to stop in time.

"It happened very quickly," Don said. "The horse was right on top of me, practically in my lap. Later I had to pry the brake pedal loose from the floor where it had stuck."

Don is convinced that without his seat belt, he would have been thrown out of the front window of the vehicle and would have suffered serious injury. He is still shaking his head. "You just don't expect to have a front end collision with a horse," he said. "Wearing seat belts is the only way you can be in any way prepared for the unexpected."

tion of Systems Described by Partial Differential Equations," annual winter meeting of the American Society of Mechanical Engineers, Nov. 9, and Illinois Institute of Technology Electrical Engineering Seminar, Nov. 12, both in Chicago.

D. K. McCarthy (1111), "A Study of the Sodium Naphthenide - Polytetrafluoroethylene Reaction," Southeast-Southwest Regional Meeting of the American Chemical Society, Dec. 2-4, Memphis, Tenn.

C. H. Purdue (2442), "Computer Aided Analysis," Quality/Reliability Engineering Committee, Electronic Industries Association, Nov. 2-3, Los Angeles.

G. R. Case (5623), "Use of Digital Computers for Circuit Design and Analysis," Oklahoma State University, Nov. 22, Stillwater, Okla.

## Take Note . . .

The 1965 Christmas seals, which for the 59th year will provide funds to fight tuberculosis, have already reached most Albuquerque homes. For several Sandians, activities of the Bernalillo County Tuberculosis Association are of year around interest.

C. M. Clendenin (9411-1), G. A. Fowler (9000), and W. T. Moffat (7220) are members of the association's board of directors.

A year ago, \$30,365 was raised from the Christmas seal campaign.

Sandia employees and their children are invited to attend a special Christmas show sponsored by the Sandia Showmakers. There will be matinee performances on

### 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

- MARON MOHAIR sofa and chair, walnut trim, \$65; 3/4 rollaway bed, innerspring mattress, \$25; crib, light oak, mattress, adjustable sides, \$20. Bidwell, 725 Lafayette Dr. NE, 255-5434.
- '54 CHEV. 2-dr. sedan, standard trans., R&H, 6-cyl. engine, \$200. Gibbs, 282-3639.
- 3 LAMPS, wrought iron, \$10; traverse rods, 3 ea., left, right and center draw, \$2 ea. Candelaria, 344-9028.
- '63 GAS RANGE, '63 Kenmore model w/Robertshaw thermostat. Saric, 299-9100.
- SKI BOOTS, Kastinger, men's size 7 1/2 medium, \$15. Glass, 298-0842.
- 3-BDR. ROBERSON, den, lg. LR, hw/floors, pitched roof, AC, stove/oven, 4 3/4% VA, landscaped, FHA appraised. Coonce, 296-1089.
- '55 FORD V-8 3 1/2-ton stake truck, best offer over \$300; new Leblanc Noblet clarinet, cost \$215, sell for \$150. Coy, 1222 Pitt NE.
- '63 T-BIRD, must sell, best offer. Fernandez, 247-9798 after 3.
- '56 MERCURY 4-dr. HT, R&H, AT, PS, PB, \$300; men's 80" wood skis and bindings, \$10. Heckman, 298-3116.
- NEW 2-bdr. mountain home, deep well, 16 miles from Sandia Corp., \$12,500. Lumpkin, 255-8441.
- YOUTH BED and mattress; maple chest, dressing table and bench; upholstered chair; boy's and girl's clothes, sizes 12 and 14. Dickason, 299-8125.
- APPALOOSA stud, fillies and brood mares, \$250 up, will take camping trailer, 2-horse trailer, or cutting saddle. Harker, 282-3435.
- ROBERSON 3-bdr., den w/fp, wood floors, dbl. garage, front sprinklers, corner lot, AC, extras, under \$19,500. Duvall, 299-8744.

- '57 FORD Fairlane 500, one owner, PS, AT, rebuilt, brakes relined, repolished, wheels balanced and realigned, \$450. Costello, 6601 Kiowa Ave. NE.
- ACCORDION, student size, Sebrell, 299-8791.
- TV, 21" Admiral deluxe table model w/remote control, \$45. Holloway, 255-6938.
- '59 EL CAMINO rebuilt V-8 stick, new paint and tonneau cover, R&H, OD, hitch, air lifts. Irvin, 299-4169 evenings.
- ELECTRIC RANGE, Hotpoint, automatic oven timer, 36" wide w/space drawer. Ghion, 298-9514 after 5.
- '58 CHEV. station wagon, 4-dr. Brookwood V-8, AT, heater, one owner, \$450. Harvey, 256-2666 evenings or weekend.
- '57 CHEV. WAGON, V-8, Powerglide, R&H, 2-tone, 68,000 miles, new tires, \$400. Hillman, 299-8438.
- BASSETT HOUND puppies, AKC, Nancy Evans blood line, 6 wks. old, terms, Weeks, 268-6887.
- TWO DOUBLE BEDS; breakfast table and chair; king-size bed spread; den furniture. Chandler, 298-1114.
- '65 VOLKSWAGEN Variant station wagon, 7000 miles. Paruta, 268-2214 or 255-7976 after 5.
- DRESSING TABLE, limed oak w/40" x 40" mirror, includes bench w/padded, interchangeable upholstered top. Nichols, 247-2564.
- HOUSE TRAILER, 2-bdr., fully equipped. Lucero, Foothill Rd. SW, Rt. 3, Box 3208.
- '65 CHEVELLE Malibu Super Sport, red, 327-350HP, 4-speed, positraction, tach, make offer. Plummer, 268-8842 after 5:30.
- SET Encyclopedia Americana, 2 vol. dictionary, 11 annuals, walnut case, \$95 or trade Early American lounge chair, maple end table. Armstrong, 255-8862.
- ELECTRIC WELDER, Craftsman, 75 amp. w/hood, cables, instruction book; Dishmaster, wall-mounted, needs repair, make offer. VanVickle, 299-1240.
- GRUNDIG AM/FM/SW push button table model radio, eagle eye tuning indicator, phono input jack, external speaker jack, \$75. Lincoln, 268-9649.
- 3-BDR., family rm., workshop or 4th bdr., carpeting, garage, covered patio, drapes, AC, 224 Gen. Marshall NE, \$13,000 refinance, below FHA. Johnson, 298-8514.
- BAY MARE and single horse trailer, both for \$200, or \$125 apiece. Casey, 299-0089.
- ITALIAN 120 base accordion, \$75. Romine, 298-4261.
- 9-PIECE blond dining room set, \$100; 5-piece turquoise kitchen set, \$25; picture mirror, \$5. Higgins, 298-0235.

- 1/2 MILE from Wyoming gate, 2500 sq. ft. home, 7 lg. rms., walled-landscaped yard w/sprinklers, owner financed. Current, 268-4171.
- CAMPER, 17' chassis mounted to 1965 1-ton truck, camper fully equipped w/toilet and shower. Mauck, 268-5560.
- '56 CHEVY 2-dr. V-8 Bel Air, \$250. Florence, 243-6889.
- '64 CHEV. IMPALA 4-dr. HT, factory air, loaded, includes 3 spare tires, under NADA book. Morgan, 292-2850.
- '59 CHEV. BEL AIR automatic, 4-dr. V-8, make offer. Garcia, 268-0835.
- BOOKCASE, tan, metal, 5 shelves, \$7; clothesline, outdoor umbrella type, \$10. Moe, 255-6271.
- NEW SHELL CAMPER, 8' long, 6' wide, 4' high, oak veneer lined, 4 lg. windows, dome light, wholesale price. Sanders, 1216 Gold SW, Apt. B.
- '57 FORD Ranch Wagon, OD, T-Bird V-8, Mark IV, AC, new snow tires, trailer hitch, level loads \$375. Robnett, 299-9192.
- BICYCLE, boy's 24" Schwinn, \$25. Shelton, 211 Richmond Dr. SE, 268-7089.
- '57 DODGE 9-passenger wagon, original owner, AC, R&H, AT, recent engine-trans. overhaul, new tires, extras, \$450. Appel, 299-3776.
- CUSTOM BUILT 4-bdr., 1 3/4 tiled baths, w/fp, dbl. garage, pitched roof, 1409 Dartmouth NE, landscaped, sell at FHA appraisal. Otero, 256-6597.
- FREE KITTENS, free delivery, two males, one all black, one tiger striped. Tatum, 877-0997.
- .30-06 SPRINGFIELD sporterized rifle w/sling, \$40. Metzgar, 242-1028.
- SET of plastic covered weights, 110 lb., \$14; MGA toneau cover, \$14; wind wings, \$6; bear bow, 35 lb., \$10. Allen, 255-4370 after 5.
- UPRIGHT PIANO, \$100 or best offer; blue parakeet to give away. Cast, 299-9112 after 5:30.
- GMC TRUCK maintenance manual for all '60 and '61 models. Fisher, 299-9235.
- HO GAUGE trains and track. Harper, 298-0146 after 5:30.
- '64 CHEVROLET Impala 4-dr. HT, R&H, AT, PS, light blue, 19,000 miles, \$1900. Will consider trade for wagon. Dauphinee, 255-6367.
- ENGLISH SPRINGER pups, registered, \$50 each, 8 weeks old Christmas day. Haskell, 865-7900.
- '55 PLYMOUTH, 6 cyl., R&H, new radiator and battery, 2 new tires, \$150. Hendrix, 299-8872.
- '58 PLYMOUTH Belvedere V-8, 4-dr., PS, \$395; Typewriter, Remington standard, \$40; ice skates, girl's size 8. Chavez, 255-6155.
- MAYTAG wringer washer, \$30. Milligan, 299-1201.

- LAWN MOWER, 2-cycle rotary, 18", Allstate, needs work, \$5. Miller, 268-5992.
- \$650 BELOW \$17,650 appraisal, Roberson pitched roof, 3-bdr., den, built-ins, carpets drapes throughout, 16 x 20 patio w/aluminum roof. Lawwill, 298-2681.
- MODEL '98 Mauser action, bolt handle forged and polished, made in Berlin in 1906, \$25. Karnes, 299-9035.
- 40" MAYTAG gas range, \$30. Delnick, 298-5276.
- '53 OLDSMOBILE '98, 4-dr., full power, never overhauled but needs valve job, \$225. Robertson, 298-2388.
- CASCO-mesh playpen, \$12; wooden playpen, \$5; Welsh nip-nap, \$2; sterilizer, \$1. Looby, 877-2742.
- '59 INTERNATIONAL Travelall, 4-spd. trans., 3 seats, BD240 6 cyl. engine, \$800. Post, 298-0481.
- ELECTRIC HAIR clipper, Craftsman professional model, used once or twice, cost \$16, sell for \$10. DeLollis, 299-5384.
- TRAVESER DRAPERIES, 96 x 144" patterned; pillows; picture; treadle sewing machine; misc. Brinkley, 255-2783 after 5:30.
- '61 DODGE pickup one ton, 4-spd, 4-wheel drive. Positraction, Warn hubs, winch. Capaldi, 318 Mesilla NE.
- BREAKFAST SET, pearl grey, table, leaf and 4 chairs, \$25. Freedman, 298-2177.
- MAHOGANY hi-fi cabinet, 30" wide, 12" speaker installed, \$10; portable Webcor phonograph, \$30 or best offer. Gottlieb, 298-8452.
- ELECTRIC RANGE, 4 years old 30" GE automatic full width oven, completely rewired, \$50 delivered. Harrison, 256-0216.
- GELDING, good pleasure horse, \$125. Sirwinski, 256-9531.
- GIRL'S 26" bike w/training wheels, \$20; 3-burner Coleman camp stove, \$12.50; dining room table, six chairs, \$35. Hawley, 255-0332.
- UNICYCLE, \$17.50. Durant, 298-4952.
- SCHWINN 10-speed bicycle, 2 1/2 years old, \$45. Kinney, 256-1517.
- TV RCA 16-inch, thin line, portable, \$45. Hunter, 299-1089.
- 3-BDR Roberson; drapes, carpeting, hardwood floors, AC, central heat, extra large fully landscaped lot, below FHA appraisal. Clark, 299-6410.
- '59 CHEVROLET pickup, 1/2-ton, 6-cyl., series 3200, 4-speed, long bed, overload springs, \$650. Smart, 298-0987.
- 26" STANDARD girl's bicycle w/basket, spring action front, "Air-Man," \$15. Coleman, 299-8321.

- 501 NYLON CARPET, soft green, pad, 15 x 12, \$80. Ready, 255-8238.
- SMALL REFRIGERATOR w/freezer across top, \$40; full rollaway bed w/washable mattress cover. Browne, 244-9675.
- '63 PONTIAC Catalina sports coupe, 2-dr., AT, PS, heater, 3-speaker radio, 48,000 miles, \$1595 (\$500 under NADA). Jarrell, 636-2834.
- TWO SINGLE size box springs w/2" foam rubber pads, upholstered, one green, one shrimp, \$15 each, \$25 both. Gravin, 255-5481.

#### WANTED

- JOIN OR FORM Consumer's Report group to benefit from lower subscription rate. Weaver, 299-1581.
- TRAVELALL or carryall, '61 or newer model. Rogers, 256-6341.
- MONAURAL FM tuner in excellent operating condition, Scott or similar quality. Wilson, 282-3225.
- 03-A3 rifle. Kasperek, 344-7520.
- RIDERS to Denver, approx. dates Dec. 23-26, share expenses. Villella, 268-4731.
- WANT TO RENT 2 or 3 bdr. and den home, unfurnished, year lease, SE or NE Heights, occupancy starting Jan. 1966. Write James P. Young, 249 E. New St., Lancaster, Pa.
- SOUTH VALLEY riders for established carpool from vicinity Adobe Acres and South Isleta Highway to Bldgs. 800 or 805. Room for two. Looby, 877-2742.
- TO RENT completely furnished house or apartment, one month only, Dec. 20-Jan. 20, responsible mature couple, references. Burks, 268-5613.
- LATE MODEL station wagon, must be in good condition, 4-dr., 6-pass, AT, Dauphinee, 255-6367.

#### FOR RENT

- MOONEY MK 21 at attractive hourly rate to 100 hour solo, 20 hour retractable pilots. Earl, 298-3954.
- NEWLY DECORATED two bedroom unfurnished apt., \$70 monthly or special lease rate. Will furnish including automatic washer, \$90. Villella, 268-4731.

#### LOST AND FOUND

- LOST—Key on snap-off ring w/metal "E" attached; man's sunglasses; gold leaf earring; keys in brown leather case; lady's gold wrist watch. LOST AND FOUND, Bldg. 610, tel. 264-2757.
- FOUND—Five-year SC tie tack; 10 keys on belt-type key retractor; glass frames; pearl-handled penknife; pipe; pair lady's tan knit gloves; silver earring. LOST AND FOUND, Bldg. 610, tel. 264-2757.



BEAUTIFUL GOWNS are standard features of the annual formal December dinner-dance of the Sanado Woman's Club. Showing off their dresses for tomorrow's gala event are (l to r) Mrs. P. E. Eyer, Mrs. A. F. Cone, and Mrs. G. C. Hollowwa.

## Coronado's Largest Interest Group Plans Formal Dinner-Dance Dec. 4

The Sanado Woman's Club, with a membership exceeding 400, is the largest Coronado Club special activity group and is also one of the most active organizations of its type in Albuquerque.

Eligible for membership are all women who are members or whose husbands are members of the Coronado Club. Meetings are held the second Tuesday of every month at the Coronado Club, and there are regularly scheduled Saturday night dinner-dances, style shows, and luncheons featuring well-known speakers. Two formal dances are held each year—the spring formal at which time new officers are installed, and the Christmas formal when daughters of members who are high school seniors are presented as debutantes.

The club dates back to February 1958 when Mrs. James W. McRae, wife of Sandia Corporation's president at that time, met with 33 other wives to discuss the need for a women's organization to welcome newcomers and acquaint them with Sandia Base and the city. There were 300 women in attendance at the first meeting on Mar. 3, 1958, and the name Sanado Club (a combination of the words Sandia and Coronado) was selected from 15 suggestions.

Within the Sanado Club are 12 interest groups which are formed as a sufficient number of members indicate a desire for them. A member may join any, all, or

none of the interest groups. Each holds separate meetings during the month. These groups include: art (with lessons for both beginners and more advanced students), arte de cocina (cooking), bowling (regular league play one morning a week), bridge, choral, garden, golf, horseback riding, skiing, social living (a variety of skills from flower arranging to decorating), tennis, and charm (instruction is offered in make-up and modeling). There is also an association for the more professional artist—The Sanado Art Associates.

Aside from purely social aspects, Sanado Club sponsors a Big Sister Program in which members volunteer to be "big sisters" to girls at the Girl's Welfare Home. Each girl is remembered by her "big sister" on her birthday, at Christmas, and at any other special occasion during the year. Close contact is maintained between the club's vice-president in charge of welfare, and the administrator of the Welfare Home.

Present officers of the Sanado Club are Mrs. R. W. Mottern, president; Mrs. J. N. Colquitt, first vice president; Mmes. J. J. Flanigan, J. A. Anderson, S. T. Landrith, and H. E. Anderson, vice presidents; Mrs. E. E. Bylander, secretary; Mrs. E. D. Harrity, treasurer; Mrs. L. A. Fjelseth, publicity.

"A GOLDEN CHRISTMAS" is the theme of the holiday decorations throughout the Coronado Club, created this year by Sanado Club women under the direction of chairman Mrs. Andy Carter. Committee workers included (l to r) Mrs. Byron Hock, Mrs. Tom Bratcher, and Mrs. David L. McVey.



## Data and Control Center Planned for Area III Vibration Test Facilities

The Atomic Energy Commission will invite bids about Dec. 10 from small business firms for construction of a data and control center to serve three vibration test facilities in Sandia Laboratory's Technical Area III.

Bids are scheduled to be opened Jan. 5, 1966, for construction of a one-story reinforced concrete building containing about 6000 square feet of floor space, installation of all utility systems, and site improvements. This phase of the work is expected to take 210 days to complete.

Total cost of the data and control center, including continuous underground cables and new instrumentation to replace obsolete equipment, is expected to exceed \$600,000. The center is scheduled to be completed, checked out, and in use by early 1967.

According to Frank W. Scheer, project engineer for Plant Engineering Department 4540, the center will house control consoles, recording instrumentation, and data reduction equipment for the vibration test (Bldg. 6560), acoustic (Bldg. 6640), and complex wave (Bldg. 6610) facilities. The control center will be located from 1000 to 2500 feet distant from these buildings.

George V. Lemmon (7311), facility engineer for Environmental Testing Organization, explained that each building now has its own control system; however, these systems cannot be operated when high explosives are being tested. Instead, the vibration facility in Bldg. 6560 must use the heavily-loaded control system in

Bldg. 6540 which already serves the radiant heat, centrifuge, and sled track facilities. The acoustic and complex wave facilities must use the instrumentation in Bldg. 6631 intended to operate the climatic facility.

The work area of the new building will include instrument and control consoles for each facility plus tape recorders and data reduction equipment for immediate evaluation and playback of the test being conducted. There is sufficient space for similar consoles for at least three additional testing facilities. A raised, sectioned floor affords easy access to cables for future changes.

Each of the vibration test facilities will be connected to the control center by two cable systems, buried six feet apart: one for power, the other for instrumentation. Steel conduit will be used any place the lines cross. "This will prevent distortion of the instrumentation signals," Mr. Lemmon said. This is important since one of the main advantages of the system is that the signals will feed directly into instrument consoles.

### Woman Weekend Golfer Shoots Hole-in-One

This will be a memorable year of golfing for Ann Michele (4510). This fall she won low gross honors in two tournaments of the Sandia Lab Women's Golf Association. Then Nov. 27, she shot a hole-in-one at Los Altos Golf Course and is believed to be the first woman golfer to accomplish this feat. Ann used a three-iron to ace the 130-yard number four hole. Members of her foursome were Pat Anderson, (7216), Dorothy Hummer (4363), and Kay Ogden (AEC/SAO).

### Mexican Trip Planned

Plans are underway for a Coronado Club-sponsored trip to Mexico in mid-February. According to travel director Pearson Crosby (AEC/ALO), the two week itinerary would include stops in Mexico City, Acapulco, and Guadalajara. Watch the LAB NEWS for further details—or stop by the Club for additional information.

### Other Club Activities

#### New Year's Eve

Tickets are now on sale at the Coronado Club office for the big New Year's Eve Party. Two bands will play for dancing from 9 to 1—Mike Michnovicz and his MBC trio upstairs, and Tommy Kelly and his combo downstairs. There will be hats, noise makers, and confetti for everyone, and a bottle of champagne for each couple. After midnight, a New Year's Day breakfast will be served.

Tickets are \$3.75 for members, \$5 for guests.

#### Christmas Parties

Through most of December, the Coronado Club schedule is crowded with Sandia organization parties. Tonight, organizations 1500 and 9210 have planned separate entertainments. Saturday, Division 4253 will have its party. From there on, the next two weeks' schedule includes Dec. 8, Org. 7300; Dec. 9, Org. 2200; Dec. 10, Orgs. 2560, 2420, 7210, and 9230; Dec. 15, Org. 3400; and Dec. 16, Orgs. 2540 and 2100.

#### Ski Club

The Coronado Ski Club will next meet Dec. 13 at 7:30 p.m. in the Club's dining room. Erich Windisch, manager of Red River ski area, will demonstrate the American skiing technique using a portable ramp.

Members will also further discuss plans for a ski trip to Red River in February.

#### Bridge Club

Coronado Bridge Club will hold its annual business meeting Dec. 6. According to club president Bill Mottern (7322), dinner will be served at 6 p.m. with the business meeting—including election of officers—scheduled to start at 6:45. Bridge play will follow. Reservations should be made by Dec. 5 with Mrs. Barbara Gossett, 298-0750.

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## Sandia's Safety Scoreboard

### Sandia Laboratory:

158 DAYS  
5,530,000 MAN HOURS  
WITHOUT A  
DISABLING INJURY

### Livermore Laboratory:

169 DAYS  
838,900 MAN HOURS  
WITHOUT A  
DISABLING INJURY