



DISCUSSING Sandia's new role in development of Systems for Nuclear Auxiliary Power (SNAP) are G. A. Fowler (left), Vice President 9000, and Glenn T. Seaborg, Chairman of the Atomic Energy Commission, who visited here last week. The unit is a mockup, similar to a SNAP-19, mounted on an RFD-2 reentry vehicle nose cone.



UCF Silver Plaques Honor 28 Sandia Organizations for ECP Participation

Silver plaques recognizing outstanding support of the Employees Contribution Plan were awarded to 28 Sandia Laboratory organizations last week. The plaques, provided by the Albuquerque United Community Fund, went to organizations which achieved at least 90 per cent participation in ECP and at least 75 per cent "fair share" contributions.

J. M. Wiesen (1440), chairman of the ECP committee, during the introductory remarks to the awards program, pointed out that a fair share contribution — one hour's pay per month — is the only goal that the ECP has promoted and that last year's drive brought the goal closer to realization. More than 2300 Sandians are now making fair share contributions. Eighty-nine per cent of Sandia employees are participating in ECP.

"Since ECP was organized in 1956," Mr. Wiesen continued, "Sandia employees have contributed a total of \$1,283,400 to the United Community Fund and have also made sizable contributions to eight other agencies which are supported by the ECP."

Charles S. Lanier, 1966-67 president of UCF, expressed the community's gratitude for this remarkable record. He said that Albuquerque looks to Sandia employees as "pace setters" of the UCF effort and is appreciative of the leadership Sandians bring to community service.

R. B. Powell, Vice President 3000, distributed the awards which were accepted by the ECP directorate coordinators. Mr. Powell expressed management's appreciation to members of the ECP committee, coordinators and speakers who conducted the campaign, and to all employees who participated.

The General Attorney's Organization 6000, received an award for 100 per cent participation and 75 per cent fair share contribution. G. C. Newlin (6011) was the organization coordinator.

Four directorates—1300, 1500, 2100, and 7500—qualified for the silver plaques. Electromechanical Component Development 1300 achieved 97 per cent participation and 75 per cent fair share contributions. Also in the 1300 organization, Electromechani-

cal Development Department 1320 achieved 100 per cent participation and 76 per cent fair share contributions and Electromechanical Development Department 1330 achieved 98 per cent participation and 75 per cent fair share contributions. L. W. Hake (1331) was the directorate coordinator.

Systems Engineering 1500 achieved 97 per cent participation and 75 per cent fair share contributions. Included in this directorate were Product Engineering Department 1520 with 100 per cent participation and 76 per cent fair share contributions and Engineering Analysis Department 1540 with 94 per cent participation and 75 per cent fair share contributions. Directorate coordinator was R. L. Wilde (1514).

Quality Assurance 2100 achieved 95 per cent participation and 75 per cent fair share contributions. In the directorate was Quality Assurance Department 2110 which achieved 98 per cent participation with 93 per cent fair share contributions. A. E. Clamp (2114) was the directorate coordinator.

Military Liaison 7500 achieved 95 per cent participation with 86 per cent fair share contributions. Within 7500, Weaponry Training Department 7510 achieved 100 per cent participation with 87 per cent fair share contributions and Field Force Department 7530 achieved 100 per cent participation with 103 per cent (exceeded the fair share dollar amount) fair share contributions. D. L. Benoist (7522) was directorate coordinator.

Departments qualifying for awards included the following:

Reliability Department 1440, 100% participation, 91% fair share; R. S. Nelson (1432), coordinator.

System Test Equipment Development Department 2440, 100% participation, 80% fair share; Component Test Equipment Development Department 2450, 97% participation, 75% fair share; A. L. Anderson (2453), coordinator.

Wage and Salary Administration Department 3110, 100% participation, 108% (Continued on Page 6)

Vela Detection Satellites Continue To Set Performance Records

First nuclear detection satellites carrying Sandia and Los Alamos Scientific Laboratory payloads have exceeded their specified design life by four and a half times, as the pair enter their 28th month of continuously monitoring radiation some 60,000 miles out in space.

The longest-enduring continuously operating spacecraft in orbit, the twin satellites were designed to operate for six months in space when they were launched in October 1963.

Purpose of the satellites is to determine the feasibility of using a satellite system to detect nuclear tests in outer space, millions of miles beyond the range of earth-bound detectors. LASL scientists calculate that x-rays from a small yield explosion can be detected from a distance greater than 160 million miles.

The payloads, which can distinguish between nuclear explosions and natural background radiation, are in continuous operation. Data from the detectors are transmitted to the ground on command in real time or from data storage.

Each of the original satellites has traveled about 90 million miles. They have operated continuously for 849 days to log some 40,752 satellite hours without a known failure.

The success of the first pair was followed by two more launches of tandem nuclear detection satellites in July 1964 and July 1965. All six of the orbiting 20-sided satellites are functioning as designed and have logged a total of 210 million transistor hours without a failure.

About 10 billion bits of information have been collected by the six orbiting satellites. These data have been collected on approximately 2500 reels, each containing 7200 feet of tape.

Eighteen of the 20 sides of each of the five-foot satellites are provided with solar cells—more than 13,000 in all—for electrical energy and two nickel cadmium battery packs provide power when the satellite is eclipsed in the earth's shadow.

LASL designed and fabricated the x-ray, gamma ray, and neutron radiation detectors for the satellites. Sandia designed and fabricated the associated data processing electronics in the satellites together with special equipment on the ground to test the performance of the payloads.

The Sandia logics systems make it possible to transmit, record, reduce, and analyze significant data collected by the detectors. The system for each of the first pair of satellites contains 1067 modules, including 2640 transistors and 11,271 resistors, and the second pair contains 1214 modules, including 3105 transistors and 12,496 resistors. For the last pair, Sandia designed integrated circuits for some of the logics modules, reducing their size by a factor of ten. The new logics systems are composed of 1400 modules with 3511 transistors and 14,449 resistors.

LASL-designed instruments have been refined to provide even greater discrimination against the always present natural background radiation that exists in space. Sources of natural background radiation include the solar wind, cosmic rays, and various belts and zones composed of electrons and protons that exist beyond the earth's atmosphere.

Other instruments on the satellites are looking more specifically at the natural background radiation. Instruments used for this purpose include solid state detec-

tors, Geiger counters, scintillation detectors, electrostatic analyzers, and cadmium sulphide detectors.

The satellites seek additional information on possible sources of charged particles that eventually become part of the Van Allen radiation belts. Information also is sought on how the earth's auroral zones may be influenced by particles coming from the tail of the earth's magnetosphere.

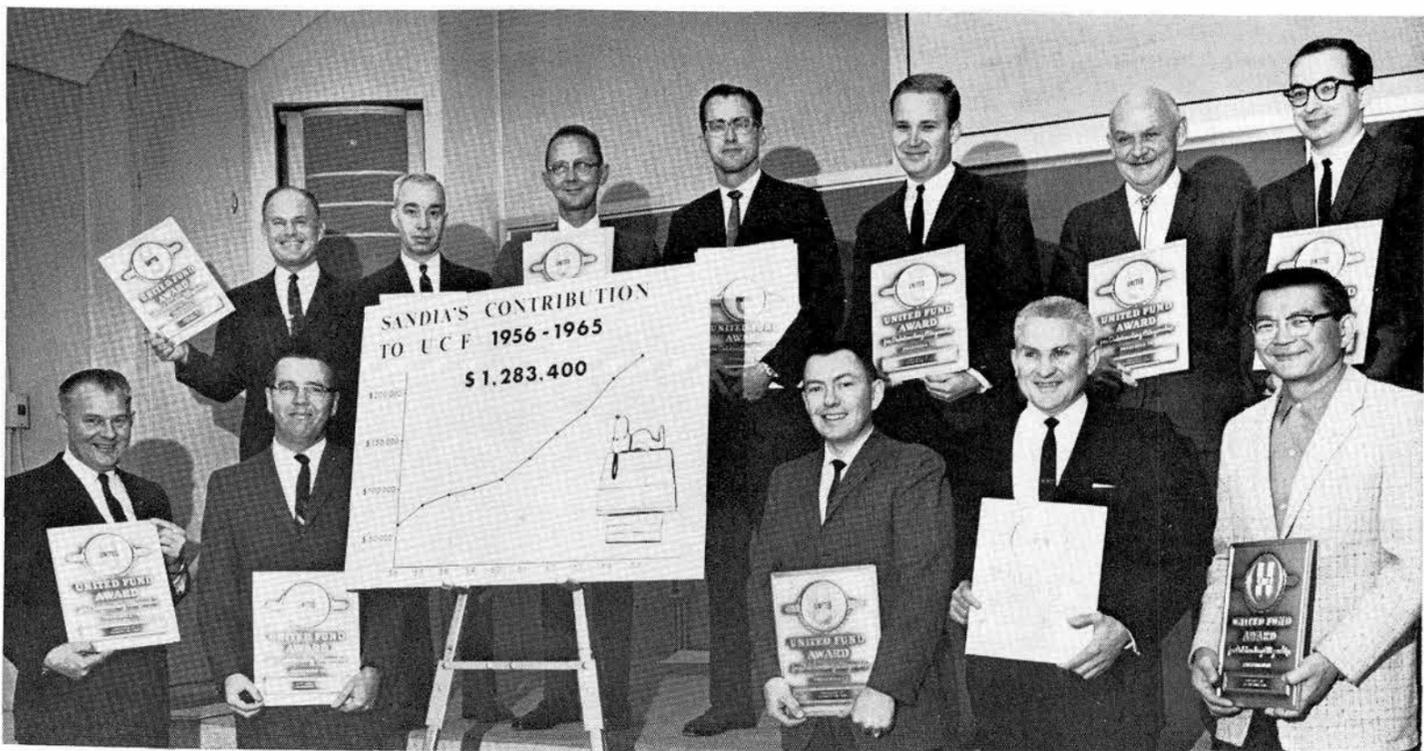
Information concerning solar x-rays is of great scientific interest. The first detection satellites were launched during a period of minimum solar activity. Now the sun is entering a period of increasing activity, with maximum activity due by 1968.

One of the major scientific goals of the detection program is the study of the character of these radiations as solar activity increases. Instrumentation on the new satellites is capable of making quantitative measurements of x-ray intensities 10 times greater than has been possible before. Information obtained by the satellites is expected to be an unparalleled source of data for solar cycle research.

Satellite Systems Division I 9231 designed the Sandia logics systems.

The detector satellite program is the responsibility of the Advanced Research Projects Agency of the Department of Defense. Air Force participation in the program is concerned with the development of the spacecraft, launch operations, and control of satellites in orbit. Management of this effort is under the Air Force Systems Command's Space Systems Division (AFSSD).

TRW Systems Group, a division of Thompson Ramo Wooldridge, Inc., designed and built the spacecraft.



UCF AWARDS were presented last week to 28 Sandia Laboratory organizations which achieved at least 90 per cent participation in the Employees Contribution Plan and at least 70 per cent fair share contributions. Directorate coordinators accepted the awards for their organizations. In the first row are, from left, A. L. Anderson (for 2440 and 2450), C. L. Hines (3210, 3220), R. L. Wilde (1500, 1520, 1540),

L. W. Hake (1300, 1320, 1330), and G. S. Kinoshita (5530). In the second row are R. S. Nelson (1440), W. C. Busby (4110, 4120), A. E. Clamp (2100, 2110), D. L. Benoist (7500, 7510, 7530), L. H. Pitts (3110, 3130, 3150), G. C. Newlin (6000), and R. K. McIntire (4310, 4350, 4370). Not shown is J. G. Wallace (3430, 3450).

Editorial Comment

Home is where the heart is—and where lots of hazards are.

The most recent case-in-point to come to our attention involves a Sandia couple and their children. The father was working in the garage, the mother was cooking spaghetti, the 8-year-old boy and the 4-year-old daughter were watching television.

Mother goes into garage to assist father for a moment. Daughter goes into kitchen, gets chair, climbs up on chair to stir spaghetti. Pajama top rests on partially exposed electric coil under spaghetti. Flannel pajamas catch fire. Daughter screams. Mother and father rush from garage, find girl in bathtub where boy is drenching girl and pajamas with water. Father finishes extinguishing flames, and rushes girl to hospital.

The little girl's life was saved by the quick action of her brother. The mother and father would have been too late.

There was no warning! There was negligence perhaps—but who can be expected to anticipate every danger?

We've all read about household hazards—slippery floors, poor wiring, hot stoves, the poisonous cleaning fluids and sprays, and more and more. Perhaps we've read too much about them, and, though we're careful, we're not careful enough—until it's too late.

Take the time, now, to check your house for safety, and try your best to foresee the "accident" that can occur.

There's seldom a second chance.

Students Visit Sandia For Special 'Science Youth Day' Program

Sandia's tenth annual "Science Youth Day" program for outstanding science and math students attracted more than 80 junior high school students and teachers for a tour of Sandia Laboratory facilities on Feb. 11 as part of the observance of Thomas Alva Edison's birth.

The annual event is aimed at honoring the great inventor and stimulating students' interest in scientific and engineering careers. Each year more than 300 corporations and other organizations help to sponsor programs involving some 200,000 young science students and their teachers. An estimated 5700 students and teachers were expected to visit 13 Atomic Energy Commission or contractor installations this year.

Inaugurated in 1957 by the Thomas Alva Edison Foundation, "Science Youth Day" activities have resulted in thousands of young science students and teachers visiting major AEC laboratories and installations over the years.

In commenting on the program, Glenn T. Seaborg, Chairman of the AEC, stated in part, "We need to expose the maximum number of young people to science in such a manner that those with aptitude will become conscious of their talent . . ."

The teachers and 9th grade students who toured Sandia were from public, private, and parochial schools in Los Lunas, Estancia, Bernalillo, and Albuquerque.

After welcoming remarks by Noble Johnson (3433), O. M. Stuetzer, manager of Technical Physics Research Department 1540, spoke on "Something About the World of Science" to start the Sandia program.

The tour program at the Laboratory included exhibits in the "Sphere of Science," the radiography laboratory in Bldg. 860,



ROBERT W. MOTTERN (7323), left, explains the operation of the 300 kilovolt x-ray machine in the radiography laboratory of Bldg. 860 to a small portion of the junior high school students and teachers who visited Sandia during "Science Youth Day."

scientific glass shop in Bldg. 839, and environmental health laboratory in Bldg. 868. The movie entitled "The Sandia Story" was also shown to the group.



CHARLES W. DE MOSS (4224-5), left, pours silver nitrate from a beaker into a funnel and tube leading to a Dewar flask held by W. A. Robertson (4224-5) during the "Science Youth Day" tour of the scientific glass laboratory in Bldg. 839. More than 80 junior high school students and teachers toured selected Sandia facilities as part of the special event.



EN ROUTE up Mount Wheeler, New Mexico's highest peak, this snowshoed trio stopped to get their bearings: (l to r) Pete Skaates (9422), Bob Kyrilach (former Sandian), and Gary Holcomb (1314).

Snowshoeing Latest Winter Fad; Endurance Is Main Requirement

Snowshoeing in New Mexico! That may sound rather farfetched, but look at how many skiers have discovered the abundance of snow-covered mountains in our state.

At latest count there were about three dozen fairly ardent snowshoers in Albuquerque, seven of them Sandians.

"Strangely enough," says Milo Conrad (7245), "we don't attract many skiers. About the only time they'll try snowshoeing is when the snow is poor for skiing." Experienced skiers give a better reason: snowshoeing is more like work.

Devotees admit that it doesn't require much skill. As Milo puts it, "After you have fallen twice, you're experienced. Mainly, it's a matter of endurance, especially if you are carrying a backpack full of provisions. But the rewards are well worth the effort, for we can hike through areas that would be unaccessible without snowshoes. And the scenery is magnificent."

The New Mexico Mountain Club scheduled five snowshoe trips this winter: Milo led a week-end trip up 11,289-foot Mount Taylor in mid-January and six reached the summit; Pete Skaates (9422) arranged a one-day trip in the Sandias Jan. 30; Don Mattox (1123) led a week-end trip to Williams Lake and Mount Wheeler (New Mexico's highest peak) Feb. 12-13; another one-day trip to the Santa Fe Ski Basin is planned for Mar. 19 with Gary Holcomb (1314), leader; and Milo will lead a Mar. 26-27 climb in the Questa area.

January and February is the main season here. During other winter months the snow is usually soggy and may accumulate six inches thick on the undersides of snowshoes.

Experienced sportsmen find that a cross country 'shoe (about ¾ the length of a 58-inch trail snowshoe) is the most versatile type and the majority have adopted a New England binding which has a strap around the instep which holds the foot rigid yet has a safety release in case of a fall. So far there have been no injuries—just tired muscles. Warm clothing (especially down-filled nylon jackets) and mukluks to be worn over boots are "musts" for lengthy trips. Ice axes are useful when the snow is icy or crusty and the snowshoes have to be carried.

The enthusiasts have found that the distance covered on snowshoes in the snow

is about half as far as can be walked on bare ground in the same period of time. When the group is larger, the going is faster since the lead for trail-breaking (which is most exhausting in deep snow) can be alternated frequently.

Milo and his friends have taken a three-day snow hike in the Pecos Wilderness, and other destinations have included Lake Katherine, Nambé Lake, 14,000-foot peaks in Colorado's San Luis range, Walter's Peak, north ridge of Mount Wheeler, and Cabresto Peak and adjoining area.

On New Year's Day, several men snowshoed to Pecos Baldy and on to 12,000-foot Trail Rider's Ridge. They wanted to climb South Truchas Peak, which has not been conquered in winter in recent years, but a blizzard and 10° temperatures spoiled their plans.

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LAB NEWS

FEBRUARY 25, 1966

SANDIA CORPORATION

LAB NEWS



ALBUQUERQUE, NEW MEXICO • LIVERMORE, CALIFORNIA

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LIVERMORE NEWS



TEEN-CANTEEN president Jim Dolan (right) accepts a check for \$250 from Claire Grubbs and Paul Coronado (both 8115) who presented the gift on behalf of Livermore Laboratory employees. The money will help furnish and decorate a lounge area in the Livermore Recreation Center for use by the 1500 teenagers who are members of the club.

Contributions Made To Teen-Canteen Project

Two checks were presented recently by Livermore Laboratory employees to the Teen-Canteen, Livermore's high school teen club sponsored by the local Recreation Center and PATS (Parents, Administrators, Teachers, and Students).

The contributions will help finance a five-year project to furnish and decorate a Teen-Canteen lounge area at the Livermore Recreation Center. Aimed at providing teenagers with "a real place to go," this lounge area will be open to approximately 1500 teenagers who are presently members of the club.

First of the two gifts, a \$250 check, was presented on behalf of Livermore Laboratory employees by Claire Grubbs and Paul Coronado (both 8115). The contribution was made possible through voluntary donations by Sandians.

Irmal Brown (8116) contributed the second gift as a memorial to her husband who passed away recently. Since her husband had always found great pleasure from a fireplace and had a lifetime interest in young people, Irmal donated the money for a fireplace and hearth now being constructed in the teen club lounge area.

The lounge area is expected to be completed in the near future. A stereo system has already been installed, and recommendations for the color scheme and furniture are being reviewed. Plans for the project also include a snack bar.

For the past five years Teen-Canteen members have been raising building-fund money from activities such as car washes, an annual Christmas tree pick-up, and special dances.

Sympathy

To Chuck Shinneman (8122) for the death of his mother in Port Angeles, Wash., Jan. 18.

To Miriam Hall (8215) for the death of her mother in San Francisco, Feb. 1.

To Gil Rhodes (8215) for the death of his father-in-law in Los Angeles, Feb. 14.

To Gene Anderson (8162) for the death of his father in Adrian, Minn., Jan. 28.

RLRA Travel Club Offers Wide Choice

A variety of trips is being offered this year by the LRL Recreation Association (RLRA) travel club for LRL or Sandia employees and members of their immediate families. In the past the club has sponsored only one or two trips each year.

The 1966 tour program has been planned to encompass a wide area in terms of places, rates, and dates so that employees will have a well-rounded travel package from which to choose.

Prices cover air and/or sea transportation, transfers, and hotel accommodations. In some cases meals, sightseeing tours, tips, and special features are also included.

The conducted tours which have been announced by the club are:

Alaska Inland Cruises—12 days—\$545. Four departures: May 30, June 7, July 1, Aug. 26.

East Coast Fall Foliage Tour—15 days—\$495. Two departures: Sept. 17, Oct. 8.

Europe/Mediterranean—34 days—\$1,435. One departure: Aug. 26.

Hawaii (4 islands)—12 days—\$445. Two departures: May 7, Oct. 1.

Hawaii (air/sea) — 15-17 days — \$495. Seven departures: Mar. 22, Apr. 18, May 12, Aug. 28, Oct. 2, Nov. 9, Dec. 8.

Hawaii (Honolulu)—8 days—\$249. Seven departures: May 7, May 21, June 11, Sept. 17, Oct. 1, Oct. 5, Nov. 5.

Mexico—15 days—\$445. Two departures: Apr. 16, Sept. 24.

Anyone interested in participating in the tour program is invited to attend a general information meeting scheduled for Mar. 2, at 8 p.m., in the LRL Auditorium, Bldg. 111.

Further information may also be obtained from Roy Moffitt, LRL ext. 7421, or Zelda Lassen, LRL ext. 11-251.

Congratulations

Mr. and Mrs. Dave Pierce (8153), a son, Timothy Henry, Jan. 18.

Mr. and Mrs. Gordon Bennett (8233), a daughter, Christie Marie, Feb. 4.

New Pre-Retirement Series Offered by Livermore Lab

A series of discussion meetings is again being offered at Livermore Laboratory as part of the continuing SCLL pre-retirement counseling program.

The series, developed to help employees and their spouses prepare for retirement while still working, is being conducted this spring primarily for those who plan to retire within the next ten years. Others interested in any of the topics are invited to attend.

Arranged by Employee Benefits Division, the meetings will be held in five, two-hour evening sessions at the LRL (East Ave.) cafeteria. The sessions, consisting of lectures and question-and-answer periods, will be held on consecutive Tuesdays, 7:30 p.m., beginning March 1.

The first meeting will cover the Sandia retirement plan, health care coverage, life insurance, and retirement annuity. At other meetings, guest speakers from the Bay Area will discuss such topics as Social Security benefits, including Medicare; full and part-time employment possibilities; wills, trusts, and other important financial papers; and health and medical aspects of aging, and the social adjustment of retirement.

Welcome Newcomers

Jan. 15 - Feb. 14

California	
Rodney D. Aguilar, Fremont	8235
Leonard A. Hiles, Albany	8122
Gene E. O'Riley, Turlock	8112
Robert K. Pierce, San Lorenzo	8252
*Thelma L. Rogers, Livermore	8253
Betty J. Russo, Livermore	8211
Leland J. Sandahl, Alameda	8252
George B. Sanders, Milbrae	8144
John A. Schroeder, Berkeley	8144
*Charles B. Sonntag, Berkeley	8126
Margaret E. Souers, Livermore	8211
*John W. Stull, Albany	8126
G. June Takahashi, Livermore	8235
Jesse Watts, Hayward	8232
Terrance D. Wolfe, Livermore	8235
Washington	
Robert D. Fraser, Seattle	8231
Leo E. Lindbloom, Seattle	8153
Meldon L. Talbot, Pullman	8133
Returned from Leave	
Richard B. Craner, Livermore	8117

*Denotes Rehired.

Sandian Teaches Supervisory Course At Chabot College

B. A. Goncher (8212) has been appointed to the part-time faculty of Chabot College and is teaching supervisory courses in the trade and technical vocational program this spring.



Mr. Goncher's first assignment is teaching a course in Techniques of Discussion and Conference Leading. The class started to meet in Livermore at Granada High School on Monday evenings beginning Feb. 14.

A graduate of Ohio State University, Mr. Goncher received his BS degree in personnel and industrial management in 1950. He then attended Colgate University taking graduate courses in economics. His studies were interrupted in 1951 when he was recalled into the Armed Forces during the Korean conflict. After his discharge, he enrolled in the University of Buffalo and completed requirements for an MA degree in industrial relations and corporation finance in 1956.

Joining Sandia in Albuquerque in 1956, Mr. Goncher was assigned to the training staff. In 1960, he transferred to Livermore Laboratory's Security Division as a staff training specialist. He currently is working in the training organization of the Employment, Placement, Training, and Records Division at SCLL.

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LAB NEWS

FEBRUARY 25, 1966



AT LIVERMORE LABORATORY recently for discussions and briefings on SCLL computer application and trends in computer-aided design were (seated l to r) R. E. Lenz, Director of Engineering Technology and Services, Central Engineering Department, Monsanto Company; R. K. Flitcraft, Director of Management Information and Systems Department, Monsanto Company; and H. K. Nason, President, Monsanto Research Corporation which operates Mound Laboratory, with B. S. Biggs (8000). Standing are C. R. Barncord (8150); P. W. Ager, Livermore Resident Representative, AEC/SAO, and J. D. Gilson (8151).

Livermore Notes . . .

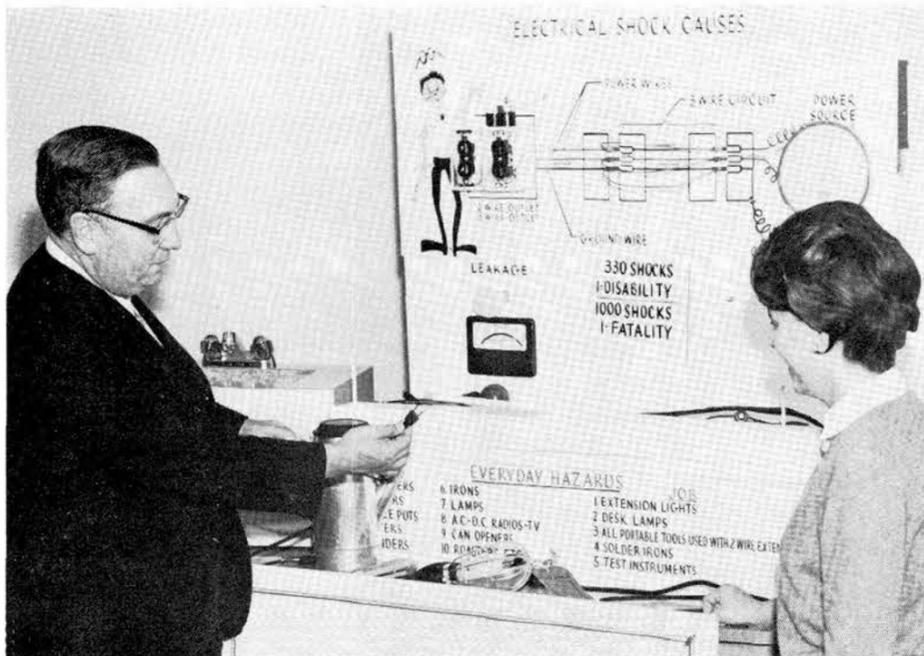
Mt. Diablo Subsection of ASME will hold its March meeting on the 10th at the Castlewood Country Club. A. Y. Pope, Director of Aero Projects 9300, will speak on "Experiences with a Thousand Rockets."

Social hour will begin at 6 p.m., followed by dinner and the meeting at 7. For reservations or further information, contact Del Elliott (8154), ext. 2688, or Louie Tallerico (8155), ext. 2870.

B. S. Biggs (8000) was elected president of Castlewood Country Club for 1966 at its recent annual meeting. He will also continue as a member of the Board of Directors for the third year of a three-year term. Last year Mr. Biggs served as vice president of the club.

Gene Lopp (8252) won the first place trophy in the Drafting Division's Round Robin Chess Tournament which ended recently. The tourney has been played during lunch periods since last October. Each of the 12 participating employees played 22 games. Oliver Rohrbach and Bill Williams tied for second place.

A free course on boating safety is being presented by Flotilla #25 of the Coast Guard Auxiliary in the Livermore-Pleasanton area. Eight classes, including lectures and movies, will be held in the Music Room at East Avenue School, Livermore, 7:30-10 p.m., Feb. 26 through Apr. 13. Families are welcome. For further information contact Jack Bullock, 846-2187; Charles McFann, 447-8789; or Bob Price, 447-8038.



SHOCKING ITEMS used to demonstrate the dangers of electricity are examined by E. A. Romine and Candy Lloyd, both of Safety Division 8215. The items, display board, and a movie entitled "A Split Second from Disaster," were used by J. J. Ransom (4516) and W. C. Elskes (4511) during their "Hazards of Electrical Shock" presentations to Livermore Laboratory employees. The program was developed by the 4500 Safety Committee.

State Representative's Day is Long But Gratifying to T. W. Hoover

Behind a shallow desk is a wooden-armed, worn, red leather chair fastened to the floor to permit the occupant to swivel about in the one confining spot. Attached to the desk top above that is a sign lettered "Bernalillo," "Hoover, Thomas W."

This four-by-five-foot area of desk, chair, and walkway, surrounded by tiers of the same type desks, is the "office" and work site of Representative Thomas W. Hoover when the State Legislature is in session. Otherwise, Tom is an engineer in Division II 5622, Advanced Systems Development Department II, at Sandia.

From that site on the floor of the New Mexico House of Representatives, a representative conducts most of his legislative activities. A day with a legislator underscores the importance of this confining work area and the fact that representatives have no offices.

It was the 20th legislative day of the Second Session of the 27th Legislature for Rep. Hoover as he and another representative from Bernalillo County arrived at the territorial styled Statehouse Building in a wet-snow splattered car. Both had spent the weekend with their families in Albuquerque and were returning for at least five more days, and undoubtedly some night sessions, of legislation in Santa Fe. With only 10 days remaining in the 30-day session, many bills had to be thoroughly considered and acted on by Feb. 17.

During the hour's drive over wet Interstate 25, the conversation between the two representatives generally centered on legislative matters. Tom's companion commented that he certainly would not care to be a stockholder in a corporation that paid its board of directors \$20 a day to manage its annual operating budget of almost \$180 million. Tom agreed with this parallel reference to the \$20 per diem that representatives are paid while the legislature is in session.

In Tom's case, which is probably typical of the majority of representatives, the \$20 allowance from the State generally covers his living expenses in Santa Fe, but not the overhead for his home in the Northeast Heights or support of his family.

Life as a Legislator

Tom uses his accrued Sandia vacation time and takes the remainder of the time off without pay when the House is in session. Legislative sessions run 60 days in odd numbered years and 30 days in even numbered years. Except for weekends in Albuquerque, he rents a room in a Santa Fe hotel which offers reduced rates to the legislators. The hotel room also serves as his office, for it is here that he studies the House bills and writes longhand replies to constituents' letters for the House secretarial pool to type the following day. But there is no time to check into the hotel room now.

Tom scurried up the marble stairs, alternately swinging his suitcase or attache case in front of him as he passed others on the traffic-heavy climb to the third-floor House chambers. He snaked through small clusters of people to turn his topcoat and suitcase over to one of two women in the checkroom.

With the homework-laden attache case still in hand, he passed through a small

doorway to stop at a counter where a young man handed him a stack of letters and telegrams. Through another doorway, past a couple of clerks in a small room, and then through double swinging doors, Tom entered the floor of the House. He placed his case on a shelf under his desk, but remained standing to open the envelopes addressed to "The Honorable Thomas W. Hoover" and to read the messages from his constituents in District 17. These were then neatly stacked on the top of his desk to answer at the first opportunity, probably that night in his hotel room.

On the Floor of the House

Tom, whose desk is in the first row of the tier-arranged chamber, retraced his steps to the floor in front of the Speaker's rostrum to speak to a representative when he was stopped by a salutation from a senator. The senator, who was sponsoring a reapportionment bill, wanted to discuss the bill briefly with Tom.

After several such brief conversations, the last of which was with the House minority leader. Tom returned to his desk again and went through some of the bills. Other members of the 77-man body were following similar patterns as the chamber approached capacity. He had spent more than an hour on the floor when the warning buzzer sounded at 10 a.m. The Speaker of the House was already seated when a second buzzer sounded a few minutes later.

After gaveling the House to order, the Speaker asked the clerk to call the roll. Following the roll, the Chaplain offered a prayer. The agenda then called for reading of the journal; introduction of legislation, including bills, joint resolutions, joint memorials and memorials; reports of standing and special committees; and the third reading of legislation.

Following introductions of guests and honorary pages, the Speaker recognized "The Gentleman from Bernalillo County," who introduced House Bill No. 58 for the third reading. The representative, a co-sponsor of the bill, explained the bill's provisions, some changes, and its purpose. A general discussion of the bill ensued when the Speaker recognized "The Gentleman from Lincoln County."

After discussion of HB 58, the co-sponsor moved that the record show that all members of the House voted in favor of the bill which provides for filing of declarations of candidacy and filing fees with the Secretary of State in cases of multi-county legislative districts. It was unanimously passed (58-0) by the House. Similar action followed on HB 59 providing for filling of vacancies in multi-county House of Representative's districts by appointment by county commission.

The legislative process continued on through some 15 more bills. It was about 2:10 p.m. when the House recessed until 10 a.m. the following morning.

Tom, like the other members of the 77-man body, had been on the floor for almost five hours studying the bills, listening, and participating in discussions. Occasionally he would rise from his chair to speak to another representative on a different tier before voting on the legislation.

Tom, like the majority of other members, worked through the normal lunch hour. Few left the floor for nourishment, though pages occasionally brought cups of coffee to the desks. With the close of floor business, Tom assembled his correspondence and copies of bills and put them in his attache case.

Committee Meeting

It was ten after two, and Tom had to eat lunch before attending a 2:30 p.m. meeting of the House Appropriations and Finance Committee of which he is a member. On leaving the House chambers, he picked up about ten more letters and some six telegrams, and made a couple of brief telephone calls. Then he rushed downstairs to a small snack bar in the basement for a delayed and hurried lunch of milk and a hot dog sandwich. Tom commented that he lost weight during the last session and anticipated that he'd do the same during the present session.

Scattered about the dimly lit snack bar were other members of the committee, each eating a quick lunch of a paper-wrapped sandwich and milk or coffee. Up the flight of stairs again to a second floor Senate committee room which was already quite filled with shirtsleeved committee members sitting around a U-shaped table, studded with stacks of manila-bound papers.

Tom started to read the bundle of cor-



BEFORE THE HOUSE CONVENES, House Minority Leader Kenneth M. Black stops to discuss a bill with Tom. Rep. David Cargo, Tom's neighbor on the floor of the legislature, reads a newspaper's editorial page.



SPEAKER OF THE HOUSE Bruce King (left) stops Representative Tom Hoover in the hall of the capitol building to share a recent political cartoon.

respondence he had received in the afternoon mail, but before he finished, Rep. John J. Mershon, chairman of the 18-member House Appropriations and Finance Committee, requested a roll call. The wooden accordion folding door was opened about midway through the roll to admit a news reporter who joined the handful of people sitting-in as observers. Several minutes later, Speaker of the House Bruce King joined the committee members for the session.

Rep. Mershon explained that the committee had agreed to get the general appropriations bill to the Senate one day early. This meant that the approved figures would have to go to the printer Friday night.

Each member received a stapled stack of 14-by-20-inch paper on which were listed the appropriation figures. Under consideration was the general fund appropriation of about \$175 million. A week before the session started, the committee had favored keeping the operating budget to within the estimated revenue of \$170.3 million.

The committee was told that the recommended general operating expenditures for the general appropriations bill totaled \$175,739,877. To this figure, the group added funds for emergency appropriations during the current fiscal year, for the proposed property reappraisal program, for the public schools' support reserve, and for appropriation bills still pending. This raised the total to be expended from the general fund to more than \$179 million.

The committee then separated one-time expenditures and arrived at a general operating budget of \$174,352,779.

One of the members had asked the Legislative Finance Committee (LFC) staff to

prepare a list of cuts that could be made without unduly harming the agencies involved. After voting on cuts in some 12 areas, the committee recessed at 9:30 p.m. until the next afternoon so members could study the staff report. The committee had started its consideration of the bill at 2:30 p.m. and worked until 9:30 p.m., with an hour off for dinner.

All in a Day's Work

Rep. Thomas W. Hoover's day of legislative meetings was completed at 9:30 p.m., but not his duties as the representative of an estimated 18,000 people in his district. He would now take time to study some of the bills that would probably be discussed on the floor the next day, study the figures in the appropriations bill along with the LFC staff suggested cuts, and, hopefully, draft replies to some of the correspondence he had received that day.

He was exhausted, but perhaps the quiet of his hotel room would provide enough change to revitalize him.

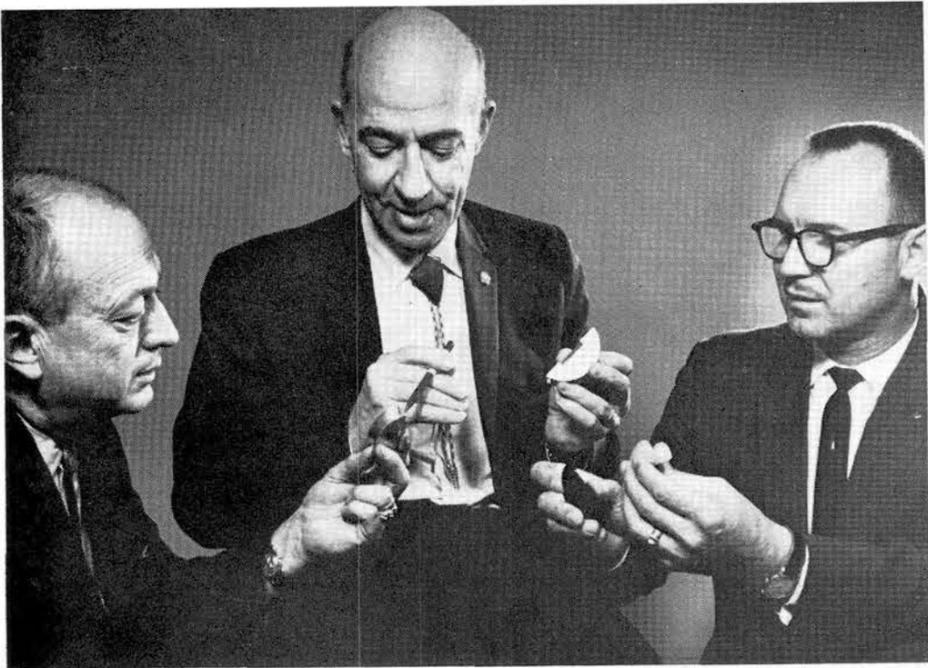
Tom's day had started with a 7:40 a.m. departure from Albuquerque to arrive on the floor of the House by nine. From 10 a.m. to 2:05 p.m. he participated in action on bills presented in the House without leaving the floor. This four hours of listening, rechecking some points, and voting was followed by a 10- or 15-minute lunch of a hot dog and some milk.

Then six hours were devoted to a committee meeting on the general appropriations bill and dinner from 6:30 p.m. to 7:30 p.m. As he entered his hotel room at 10 p.m., he anticipated another two hours of work before retiring for the night.

His compensation for the 12½ hours was \$20 per diem and a feeling of satisfaction that he was making a contribution to good state government.



REPRESENTATIVE TOM HOOVER has his usual "relaxed" lunch between a legislative session and a committee meeting.



INVENTORS (l to r) D. E. Grim, F. A. Kunz, and R. C. Gauerke display their link and shackle insert device made from various materials. The insert has provided a method to save time and effort in shipping special Sandia containers.

Simple Device Invented by Sandians Saves Time, Effort in Shipments

A small, simple device called a link and shackle insert, invented by three Sandians, has provided a better and cheaper shipping method for Sandia special-designed containers and may have wider applications in the transportation industry. A patent, number 3,224,185, was awarded to the trio last month.

D. E. Grim (1544), F. A. Kunz (1521), and R. C. Gauerke (2442) conceived the device to solve a problem confronting them when assigned to a Packaging and Handling Equipment Division.

Special Sandia-designed shipping containers required great care when being tied down inside rail cars and truck vans. The containers had to be secured to protect their contents. In addition to wood shoring; chains, cables, and wires attached to the round rings welded to the containers were used to anchor the shipments.

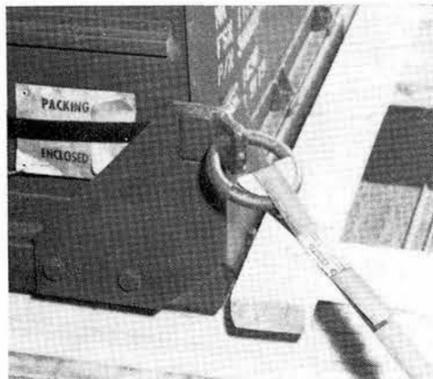
These rings were designed for use with the hooks and cables aboard military aircraft to tie down cargo.

The frustrating thing in surface shipments was that commercial steel strapping, which is in widespread use in the transportation industry, could not be used with the rings on Sandia containers. The flat steel strap, when bound tight against the ring, could not make complete surface contact. It touched only at the edges and would break when subjected to strain.

The link and shackle device fits in the container's rings and provides a flat surface needed for proper contact with steel strapping. The device can be used at any angle with the straps and provides great strength. It enables the containers to be tied down rapidly and securely with very little effort or wood shoring.

The Sandians applied for and were granted a release under which they were allowed to file a private patent application and take other steps to exploit the invention.

The release reserves to the Government and Western Electric Company royalty-free licenses under any resulting patent. The patent was issued Dec. 21, 1965.



LINK AND SHACKLE INSERT, shown here fitting inside a ring on a special Sandia container, enables the use of commercial steel strapping to tie down Sandia shipments in rail cars and truck vans.

Ceremony at Berkeley, Calif.

Mark 25 Years Since Plutonium Discovery

The 25th anniversary of the discovery of plutonium, a major fissionable fuel of atomic energy, was observed Feb. 21 by designating a small laboratory at the University of California, Berkeley, a National Historic Landmark. Secretary of the Interior Stewart Udall officiated at the ceremony with the University's Chancellor Roger Heyns. Featured speaker was Glenn T. Seaborg, Chairman of the Atomic Energy Commission, and one of the discoverers of plutonium.

Two other co-discoverers also participated—Dr. Edwin M. McMillan, director of Lawrence Radiation Laboratory, and Dr. Arthur C. Wahl, professor of chemistry at Washington University, St. Louis, Mo. The fourth co-discoverer, Dr. Joseph W. Kennedy, died in 1957. Dr. Seaborg and Dr. McMillan were awarded the Nobel Prize for their plutonium and associated research.

Twenty-five years ago, scientists were just beginning to study details of the astonishing fission phenomenon, the first new source of energy discovered in a century. At Berkeley, Dr. McMillan undertook to study the distance fission products are propelled when uranium splits. He used the 60-inch cyclotron of the late Nobel Laureate Ernest O. Lawrence, inventor and developer of the machine which gave the popular term "atom smasher" to particle accelerators.

In the spring of 1940, McMillan, with the collaboration of P. H. Abelson, proved that element 93, neptunium, had been created. Their findings were published in the June 15, 1940, *PHYSICAL REVIEW*. McMillan also found some indication that element 94 (plutonium) was present in the sample, but before he could prove it he was called away in the fall to do radar research.

The search for element 94 was continued by Dr. Seaborg, then a young instructor in chemistry at Berkeley, his fellow instructor, Dr. Kennedy, and Wahl, a graduate student.

At about this time, the search for element 94 began to assume a new urgency. American, British and French scientists feared that if Hitler was the first to ob-

Shotgunner Denny Krenz Finds The Crow a Smart, Wary Bird

Denny Krenz (7332) is a shotgunner. He hunts ducks, geese, dove, quail, and pheasant in season with some luck and some drawbacks.

For instance, he says, "I was born 30 years too late. Many a Saturday afternoon, as a boy, I would sit in my uncle's office. He was a veterinarian in my hometown (Mendota, Ill.), and his office was the gathering place for all the old-timers to sit and talk of those good old days. I listened to stories of duck hunting when the limit was 20 birds a day or when the daily limit on pheasants in South Dakota was 10 birds. We all realize that those days are gone forever in the United States."

So what can an ardent shotgunner do? Denny has an answer, "Hunt crows."

"The crow is a smart bird," Denny says, "and he's a varmint. He's a pest, a nuisance, and he spreads cattle diseases up and down the valley. Crows also destroy the nests of the young of songbirds and gamebirds."

So in the off seasons for game birds, such as right now in mid-winter, Denny hunts crows. The farmers welcome him in the surrounding valley.

But it isn't easy to shoot crows.

"They're too wary to get close enough for a good shot," Denny says. "You have to wear a complete camouflage suit and a headnet. You hide in the bush and use a reed caller. With some luck, you might get 30 crows in a day. Forty yards is about the average distance of the shots, and this takes some skill with a shotgun."

Denny's quest for crows is described in the current issue of *NEW MEXICO WILDLIFE*.

A wildlife chef as well as sportsman, one of Denny's recipes recently won honors in a national contest sponsored by a manufacturer of men's shoes. His recipe for "Polynesian glazed dove" was entered in the Wood-N-Stream Fur, Fish, and Fowl category and competed against such fare



DENNY KRENZ (7332), in full camouflage suit, uses a 20-gauge double barreled shotgun to down a fast-moving crow. The birds are pests in the Rio Grande Valley.

as "roast rump of cougar, broiled beaver tail, sweet-sour moose nose, bullhead salad, and pheasant sukiyaki."

Welcome Newcomers

Feb. 7-18

Albuquerque	
Mary Ann S. Ansorg	3154
Ida M. Caldwell	3151
William I. Duncan	1316
Nike S. Fajardo	4574
Virginia Jaszewski	2555
Joan M. Kirby	2555
Clare C. Landvater	3126
Herman H. Leopold	5221
Andrew L. Lopez	3415
B. Jeannine McCrory	4135
S. Clare Miller	4135
William A. Olsen	5621
Robert Rainhart	3126
*Robert J. Yuhas	2212
California	
*Alan D. Swain, III, Inglewood	2152
Connecticut	
Robert N. Rogers, Middleton	5151
Kansas	
John T. Stephens, Lawrence	9312
Illinois	
Michael J. Forrestal, Chicago	1541
Texas	
Buck C. Douglas, Lubbock	4112
*Denotes rehire.	

fissionable isotope that was the ultimate prize of the search. But with the chemical knowledge gained, Seaborg, Kennedy and Wahl, joined by Segre, discovered the fissionable isotope plutonium-239 (half-life—24,000 years) by bombarding uranium with neutrons in the 60-inch cyclotron.

On March 28, 1941, the four scientists put their sample of plutonium-239 in the neutron beam of the 37-inch Berkeley cyclotron. Not only did they observe on oscilloscopes the high peaks characteristic of the enormous energy generated by the fission of the plutonium; they also found that fission with slow neutrons in plutonium-239 was more efficient than in uranium-235.

The budding atomic age now had a new dimension. The relatively limited amount of uranium-235 in the world is a tremendous natural resource. But what a resource is available because uranium-238, making up more than 99 per cent of natural uranium, can be converted in a reactor into fissionable fuel: plutonium!

The conversion of uranium-238 into fissionable plutonium-239 takes place in a nuclear reactor. Placed in or close to the reactor core is a quantity of uranium-238. Some of the excess neutrons during the fissioning of the fuel are captured in uranium-238—and through a chain of radioactive decay, the end result is plutonium-239. Of major interest to our future is a particular kind of reactor—the "breeder" reactor—so named because in such a manner it produces more fuel than it consumes.

An idea of just how valuable plutonium is as a fuel in nuclear reactors is gained from a look at our principal energy sources. Without nuclear energy, our fossil fuels would be exhausted within 200 years at most, according to estimates. But plutonium could multiply this supply of energy more than a thousand times!

Plutonium of necessity will play a principal role in our future. It insures that for generations and centuries to come an increasingly technological world will not grind to a halt for want of power.

Supervisory Appointments

ROBERT A. WARE to supervisor of Development Support Section 8161-1, Product Control Division, effective Feb. 1.



Bob came to Sandia in June 1948. He worked primarily in inspection, pre-production, and stockpile control, and in June 1956 transferred to a Sandia post at the U. S. Naval Weapons Station at Yorktown, Va., where he was involved in quality assurance administrative activities. Since transferring to Livermore Laboratory in December, 1959, Bob has been a project coordinator.

He has attended the University of Maryland and the University of New Mexico.

During World War II Bob served in the U. S. Navy and the U. S. Maritime Service.

JAMES D. APPEL to supervisor of Safety Analysis Division 9319, Aerospace Nuclear Safety Department, effective Feb. 16.



Jim joined Sandia in August 1954 and was assigned to a weapons project group for two years. From 1956 to 1959 he was engaged in firing-set development work. He transferred back to a weapons project group for about three years before he was assigned to the Aerospace Nuclear Safety Department in 1962.

Before coming to Albuquerque, Jim was an electrical engineer with the U.S. Bureau of Standards in Washington, D.C., for five years.

He received a BS degree in mechanical engineering from Pennsylvania State University in February 1949 and a BS in electrical engineering from George Washington University in May 1953.

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

SAM L. JEFFERS to supervisor of Design Analysis Division 9312, Aerospace Nuclear Safety Department, effective Feb. 16.



Sam joined Sandia in June 1956. He was with a weapons project group until he was temporarily assigned to Livermore Laboratory in December 1961 for eight months work on Operation Dominic. In July 1962 he transferred to the Aerospace Nuclear Safety Department.

He received a BS degree in mechanical engineering from the University of Colorado in June 1956 and an MS in mechanical engineering from the University of New Mexico in June 1961.

Sam is a member of Sigma Pi Sigma, Sigma Tau, and Tau Beta Pi societies.

Take Note . . .

The Sandia Day School Nursery has started a night nursery service which Sandia Corporation employees may use for their children from 18 months to 12 years of age.

Located in Bldg. 1851, the hours of operation are 6 p.m. to midnight Monday through Friday, and 6 p.m. to 12:30 a.m. Saturday. Fees are 35 cents per hour for the first child and 25 cents per hour for each additional child. The nursery will not serve an evening meal.

Parents of crib-age children are asked to telephone in advance since equipment for children in this age group is limited.

For additional information, call the nursery, tel. 264-1297 or 264-1785.

The annual membership drive is underway for the Sandia Lab Women's Golf Association. All Sandia women with an interest in golf are invited to join—you don't have to be an expert.

League play starts in the spring on both the pitch and putt and the 18-hole course at Los Altos. Local and out-of-town tournaments are scheduled throughout the summer.

For further information, contact SLWGA president Eleanor Kelly (3151) or Employee Services Division representative O. J. Foster (3121), tel. 264-7775.

Have a canoe you're not using?

Two Boy Scout troops are looking for metal or fiberglass, two- or three-man canoes which could be borrowed for a week in June or July. The boys plan to start at the Kit Carson Council's Conchas Aquatic Base and paddle their way across Conchas Lake and up the Canadian River, one of the tributaries.

If you can help, please call Sandians Hal Baxter, home tel. 344-7601; Art Cordova, home tel. 344-3110; or Dick Brian, home tel. 299-5596.

Interviews for Four-Year Apprenticeship Programs Underway

Sandia Laboratory will conduct four-year apprenticeship programs leading to journeyman status as machinists or electronics technician starting next fall. Employees interested in participating in the programs should apply before April 15.

Each of the two programs provide about 8,000 hours of on-the-job and classroom training.

On-the-job training will be given in the shops during normal working hours under qualified instructors. Apprentices will be scheduled for rotation within the general organization to acquire experience in various types of operations required for their training.

In-hours theory classes will be conducted in classrooms and laboratories. Related academic subjects, such as mathematics, mechanical drawing, shop theory, physics, metallurgy and plastics, must be completed in out-of-hours classes.

Candidates are now being interviewed for the two programs. Employees interested in enrolling in either of the programs should contact Jack Rex, Personnel Division II 3154, in Bldg. 832 or call tel. 264-5868.



Mary Ann Bishop (4371)

Take A Memo, Please

Safe work habits can be carried home. Be aware of dangers to both yourself and to members of your family.

PAGE SIX

LAB NEWS

FEBRUARY 25, 1966



SCOUT LEADERS (l to r) Fred Gross, Walt Scott, and Art Cordova admire their recently earned Wood Badges. To earn the honor, the men completed a three-phase requirement including camping, written philosophy, and service periods.

Three Sandians Earn Scout Wood Badges

Three Sandians—Art Cordova (4233), Fred Gross (5520), and Walt Scott (2225)—recently earned the Wood Badge, the "PhD of Scouting" for adult leaders.

Requirements for the award include an encampment training session where the men undergo intensive training in the mechanics of leading scouts on camping trips, writing a "thesis" on scout philosophies and ideals, and a period of voluntary service to the scouts.

For Walt, the third requirement was met with 10 years of work with the scouts as a scoutmaster, commissioner, and assistant district commissioner. Currently, he is an advisor to Explorer Post 165. He has one son in the scouts.

Fred has been active in the scouts for 11 years as an assistant scoutmaster to a number of troops before becoming scoutmaster to Troop 388. His son is an eagle scout.

Art has served as an adult leader with the scouts for six years as an assistant and scoutmaster of Troop 9. His son recently became an eagle scout.

Events Calendar

Feb. 25—Traveling folk art show, "The Old and the New," Botts Memorial Hall, 423 E. Central.

Feb. 26—Albuquerque Children's Theater presentation of James Thurber's "Many Moons." Albuquerque High School auditorium, Central and Broadway, 10:30 a.m., 1 and 2:30 p.m.

Feb. 27—Penasco Springs hike (unusual rock formations, craters, and mineral springs). N.M. Mountain Club, leader Norm Bullard, tel. 268-1812.

Mar. 4-6 and 11-13—"A Funny Thing Happened on the Way to the Forum," Music Theater Production. Menaul School auditorium.

Mar. 5—Phoenician Rock and Mystery Mesa. N.M. Mountain Club, leader Don Mattox, tel. 268-5554.

Mar. 6—Westminster 40-voice choir, UNM Cultural Series. Student Union, 8:15 p.m.

Mar. 6—Federico Fellini film "Nights of Caberia," followed by discussion. Newman Center, 1815 Las Lomas NE, 7:30 p.m., tickets at door 50 cents.

Mar. 8—Albuquerque Civic Symphony "POPS" concert, Arthur Fiedler guest conductor. Civic Auditorium.

'Build With Adobe' Features Local Homes

A newly-released book, "Build with Adobe," features the homes of several Sandians: L. A. Hopkins (1300), A. I. Redlinger (4211), P. J. Krogdahl (2132), and J. D. Shreve, Jr. (5234).

A long-time interest in New Mexico architecture led to the writing of the book by Marcia Southwick, wife of John A. Southwick (2412). John developed and printed all of the photographs which illustrate the book, that was published by Alan Swallow of Denver. As Marcia explained in the introduction, "I wanted to build an adobe house, but found there was so little information available. This book resulted from my research."

Continued from Page One . . .

ECP Awards

fair share; Organization and Manpower Development Department 3130, 100% participation, 87% fair share; Employment and Personnel Department 3150, 93% participation, 88% fair share; L. H. Pitts (3111), coordinator.

Safety Engineering Department 3210, 100% participation, 96% fair share; Labor Relations Department 3220, 100% participation, 112% fair share; C. L. Hines (3244), coordinator.

Public Relations Department 3430, 90% participation, 85% fair share; Administrative Assistant Department 3450, 90% participation, 89% fair share; J. G. Wallace (3413), coordinator.

Systems and Procedures Department 4110, 98% participation, 78% fair share; Auditing Department 4120, 96% participation, 77% fair share; W. C. Busby (4114), coordinator.

Purchasing Department I 4310, 95% participation, 83% fair share; Price and Cost Analysis Department 4350, 100% participation, 94% fair share; Purchasing Department III 4370, 100% participation, 91% fair share; Kent McIntire (4373), coordinator.

Advanced Systems Research Department III 5530, 90% participation, 90% fair share; G. S. Kinoshita (5621), coordinator.

Sympathy

To Dorothy Jones (4153-1) for the death of her husband, Feb. 9.

To William A. Doyle (3243) for the death of his mother in Green Bay, Wis., Jan. 28.

To J. R. Sublett (2560) for the death of his father in Texas, Feb. 11.

To M. E. Bailey (2543) for the death of his father in Florida, Feb. 12.

20 Years



H. B. Austin
7226



B. H. Bright
2230



C. H. DeSelm
8200



A. E. Hall
4221



W. A. Jamieson
8235

Service Awards

15 Years



Samuel Allen
2511



Claude Baca
4513



L. Z. Beatty
3242



L. H. Best
4153



F. H. Schneider
4315



R. H. Shultz
2120



O. J. Birdsong
7245



M. J. Bustos
4614



K. L. Cahill
7214



A. C. Carabajal
7262



Gino Carli
2451



F. G. Chavez
4221



F. H. Fox
4517



Dorcas Gabaldon
4234



V. C. Garcia
4573



H. F. Gustafson
2234



T. O. Harrell
2554



F. K. Harrison
2511



G. I. Hastie
4573



R. W. Hewes
2523



H. J. Hildebrandt
1330



J. H. Hockett
4112



H. E. Kindschi
4573



P. L. Kirby
4114



H. D. Large
2554



A. R. Lundsford
4512



R. R. Middlesworth
9312



R. A. Miller
4614



F. E. Mitchell, Sr.
4131



Howard Nicholson
4137



J. M. Phillips
2451



R. W. Poetzel
2513



J. P. Pupelis
2212



Elizabeth Rainey
4220



H. B. Thomas
2511



Rueben Villanueva
4631



F. H. Viquesney
3451



D. A. Watt
4233



G. A. Wright
7326

10 Years

Feb. 25 - Mar. 10

J. A. Thomas 2126, J. C. Pelletier 2513, Kendrick Kerns 3455, Alice L. Brinkley 4620, R. K. Petersen 7262, J. J. Benson 2562, D. E. Graham 3432, A. D. Barton 4213, J. C. Hays, Jr. 7255, D. E. Yearout 8156, M. R. Zimmerman 9226, S. Joanne Myers 3421, E. M. Click 1333, R. W. Carter 3462, Elias Gabaldon 4575, C. R. Eisenhour 7267, F. G. Gonzales 4518, Richard Duran, Jr. 4614, D. J. Hosterman 7523, R. J. Luikens 1514, E. R. Barber 2221, E. D. Niper 7252, and Boney Vigil 9411.

Tournaments Set For Sandia Golfers

Fourteen tournaments have been scheduled for the 1966 season by the Sandia Employees Golf Association (SEGA). All Sandia and AEC/SAO male employees are eligible for membership in SEGA, and annual dues of \$2 entitle members to participate in league and tournament play and to be eligible for the many prizes and trophies awarded during season play.

The tournaments will be played from February through November in Socorro, Los Alamos, and at the following local courses: Paradise Hills, Los Altos, Arroyo del Oso, San Mateo, and both the old and new courses at UNM.

Information, membership applications, and tournament schedules are available from O. J. Foster (3121), Bldg. 610, tel. 264-7775.



ECP RESERVE FUND provided this new whirlpool therapy machine at the New Mexico Rehabilitation Center. It was purchased with a \$530 allocation from the fund last December and was recently installed. Using the whirlpool for arm massage is Robert Meade, a patient at the Center. At left is Mrs. Joan Weatherholt, chief physical therapist.

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

- GE ELECTRIC RANGE, Megrant, 255-6105.
- NEW BOY'S SUITS, girl's dresses, and other misc. children's wear. Daniel, 268-8335.
- MALE Collie-Shepherd puppy, both parents pedigreed, \$10. Roth, 877-4997.
- '54 CHEVY station wagon, rebuilt engine and front end. New tires, R&H, \$150. Baxter, 344-7601
- WALL MIRROR, 40" x 64", \$20. Anderholm, 255-6855.
- SOUTH VALLEY home on 2/3 acres, 3-bdr., 1-3/4 baths, 21 x 23 LR w/fp, hw/floors, AC, w/attached newly redecorated apt. Yaple, 877-3045.
- TAPE-OTHON TAPE players (2), 3 3/4 ips, continuous music, \$85 each. Walters, 255-5200.
- PIANO, beginner's practice, cheap but useable for determining child's interest; \$90. Berry, 898-1400 after 3 p.m.
- 3-BDR., 1 3/4 bath, LR fireplace, double garage, built-in electric kitchen, dishwasher, new carpet, drapes, AC, landscaped, \$18,000 or assume. Taylor, 298-0426.
- LAWN TRIMMER and edger combined, powered by 2-cycle gasoline engine, \$28 or trade for gasoline powered chain saw. Benischek, 256-7869.
- WINCHESTER 1892 RIFLE \$45; cap and ball pistol \$18. Trade for old hunting knives. Smitha, 299-1096.
- BOY'S 24" BICYCLE, new tires, thornproof tubes, etc., \$11. Tiera, 299-2763.
- 2-BDR HOUSE, newly redecorated, sprinklers, double garage, fireplace, large lot, established neighborhood, near schools. Hake, 299-3940.
- 1964 PONTIAC TEMPEST, V-8, AT, tinted glass, baby blue color. \$1500. Arenholz, 298-1724.
- 2-BDR. HOME, Parkland Hills, AC, carpeted, drapes, patio. Close to schools, shopping, churches. Parsons, 268-6680.
- WATCHMAKER'S BENCH with parts, tools, lathe, staking set, and washer. Barrett, 299-7284 after 5:30.

- 1963 CORVETTE CONVERTIBLE, 4-speed, PB 300HP, AM-FM radio, Johnson, 298-0024.
- FOUR 6-70X15 NYLON white wall Allstate first line tires, tubes included, \$65. Serrano, 242-8807.
- ROBERSON, MESA ARRIBA subdivision, 3-bdr., 1 3/4 bath, hardwood, paneled den, carpet, sprinklers, sell below FHA. Moyer, 298-1778.
- '50 PLYMOUTH, it runs, \$55. McClelland, 296-3661.
- FIVE ACRES in Manzano Mountains, \$750, consider trade for seasoned real estate contract. Durant, 298-4952.
- TEARDROP PICKUP CAMPER, half cab over. Single bed over cab, double bed below. 1964 model. Goodwin, 256-2216.
- PHILCO 17" portable TV. Tube used three months, \$30. Weir, 299-1160.
- VIOLIN, case, bow, book, stand. \$60. Want electric guitar. Adams, 268-5943.
- MISC. ELECTRONIC GEAR and parts. Jones, 268-4954.
- GRUMMAN ALUM. CANOE \$80; Eska 3-hp motor \$40; utility trailer \$40; package \$150. Prices include paddles, motor bracket, paint job. Miller, 282-3168.
- TENOR BANJO, rebuilt and refinished. \$65. Glover, 298-7302.
- 4-BDR. furnished, \$8450, \$65 monthly, 2805 Second SW. Low down payment, no qualifying, take trade. Chavez, 298-5091.
- GULBRANSON UPRIGHT PIANO, \$150. Entwisle, 265-6175 after 5:30.
- 21" TV-STEREO combination, 3-speed changer, extension speaker, walnut cabinet. Miller, 265-6175 after 5:30.
- SEARS WOOD LATHE, \$10; boy's 26" bike, \$15. Rushing, 299-4796.
- BICYCLE, girl's, 20", \$10. Magnuson, 268-5955.
- CAMP TRAILER equipment, chrome plated bumper to frame connector, rear vision mirror, high pressure water hose. Garcia, 256-6609.
- BABY CRIB w/mattress. Clark, 298-3703.
- SELL OR LEASE: 3-Bdr., den, pitched roof, hw/floors, AC, FHA app., landscaped, near schools, shopping. Coonce, 296-1089.
- 14 Cu. FT. GE REFRIGERATOR with freezer compartment, \$55. Lathrop, 255-1901.
- STEREO TURNTABLE—REK-O-KUT B-12H. Base, two REK-O-KUT Arms, \$75. Sluyter, 298-5844.
- STEREO CABINETS, two speaker enclosures, one equipment cabinet, matched set, rubbed mahogany. Cost \$180, sell \$85 complete set only. Longfellow, 299-7062.
- '62 FORD 2 dr. HT New 406, 3-spd. O.D. new brakes, tires. Tarbell, 256-1322.
- 318 Mesilla NE, 3-bdr., 1 3/4 baths, dbl. garage, carpet, drapes, built-ins, AC, 2 miles Sandia, \$15,500. Capaldi, 268-7667.
- UMBRELLA TENT 9x13 single side room with 6x7 enclosed entrance. Used two seasons. MacDougall, 299-8496.

- 1963 CHEVY II Nova sport coupe, 26,000 miles, 6-cyl., standard transmission, white walls, \$950. Horning, 256-6775.
- WOOD BURNING COOK STOVE, complete with oven and water reservoir. Ideal for mountain cabin. Crass, 299-1418.
- DISHWASHER, Kenmore 600 portable, copperstone, year-old. Paid \$190, asking \$100. Consider trade for what have you. Martin, 282-3794.
- 3-BDR. MOSSMAN, 1700 sq. ft., den, sprinklers, 1 3/4 baths, large lot, dbl. garage, carpeted, 3218 Indiana NE. Lloyd, 255-1247.
- 3-BDR. BRICK, 1 1/2 baths, custom drapes, w/w carpet, large patio, walled yard, water softener, breakfast bar, new tile, FAH. Wilson, 298-0049.
- 20" BOY'S BIKE, \$20; high chair, \$7; swing set, \$10; hobby horse, \$3. Ganzler, 296-1211 after 5:30.
- '57 FORD STATION WAGON, R&H, AT, \$185 or best offer. Browning, 299-6384.
- STEEL WINDOW complete with glass and screen 2 x 3, 25" x 53", \$10; child's record player, 3-speed, \$5. Finley, 299-0739.
- MOBILE HOME 8' x 41' with 8' x 26' addition; lot near base; 21" TV; lumber. Donner, 268-6534.
- TOY POODLE, silver, male, 8 weeks old. AKC registered. Shipley, 298-2433.
- 3-BDR., partially completed den, wall-to-wall carpeting throughout, AC, fenced backyard, corner lot, close to base. Downs, 268-5896.
- '62 PONTIAC, GP, extras, \$1600; '50 Chev. PU, extras, \$900; elect. range, \$25; bowling ball and shoes, \$6; chain saw, \$55; tires; wheels. McDonald, 268-5041.
- '54 CHEVY SIX station wagon, R&H, snow tires, std. trans. \$195. Gutscher, 298-6563.
- CONN ORGAN, two 61-note manuals, 25-note pedal; separate 50-watt Leslie tone cabinet; suitable for home or small church; cost \$2,700 3 years ago. Bircher, 268-0726.
- YOUTH CHAIR, chrome, child's plastic-top table and chair; baby bassinet. Wheeler, 256-6230.
- BASSET HOUND female, tri-color, 7 mos. old, AKC, all shots. Moss, 298-2643.
- '55 FORD, motor w/7000 miles; new battery, generator, starter, steering column. Realignment—wheels balanced. Asking \$250. Cook, 268-6406, after 5.
- 2 BLOCKS FROM BASE. Brick 3-bdr., 1 3/4 baths, hardwood floors, AC, FHA appraisal, \$16,500. Make offer. Shatz, 299-4585.
- RESPONSIBLE ELDERLY woman to be companion or care for female convalescent. 7 ft. men's wood skis, bindings. \$10. Heckman, 298-3116.
- 40" MAYTAG gas range, \$30. Delnick, 298-5276.
- BUNK BEDS, maple, twin size with ladder and guard rail. \$30. Hayes, 299-1200.
- SELECTRONIC RACE SET, \$15; refrigerator, \$30; Chinese Chippendale couch, \$40; Rolleicord camera, \$30; 1958 truck and camper, \$900. Butler, 299-5626.

- KENMORE cabinet style sewing machine, \$35; set of 14 volumes Garden Encyclopedia, \$14. Sacrifice. Glaze, 9707 Chapala Drive, NE.
- MOSSBERG .22 cal. rifle bolt action 8-shot repeater, \$25. Svensson, 344-7700.
- GARRARD 3-spd. changer, \$25; Bogen 15-watt amplifier, \$20; Carlson enclosure, 15" woofer, tweeter, crossover, \$60. Erne, 299-0565.
- GUITAR, electric Gibson, with case, \$110. Lovett, 255-5796.
- '57 OLDSMOBILE '88" red & white, no dents in body, R&H, \$150. Boyd, 247-9448.
- SAVE \$1500. 26-ft. Streamline travel trailer, new 1964. Fully self-contained with separate bathroom & twin bed. Used one mo. Miller, 247-4522.
- MUSKRAT FUR COAT insured for \$600, sacrifice \$100. Single walnut bookcase bed, dbl. dresser, mirror, new \$100. Maple coffee table, \$35. Ling, 298-9242.
- SIX PASSENGER '61 VW Pickup, all new pistons and cylinders, still on engine break-in, radio and full tarp and bows, \$845. Shreve, 898-3407.
- MOSSMAN SACRAMENTO, enlarged, 4-bdr. and den, 1800 sq. ft. living area, \$22,000, 3506 Florida NE. Mattox, 268-5554.
- JEMEZ COUNTRY, 3 acres with ponderosa pines at La Cueva. Aaron, 282-3803.
- DETACHABLE CAR TOP LUGGAGE or ski rack. Used once, \$5; 17" Hoffman TV with stand, \$20. Murphy, 256-1130.
- '63 RAMBLER 4-dr. classic sedan, Air, R&H, V-8 engine, Std. Trans., \$1295. Carroll, 299-5358.
- OR TRADE: '65 GMC 1/2-ton 6-cyl., 4-spd.; Garcia, 298-8450 after 5 or all day weekends.
- 3-BDR. HOME, carpeted, AC, drapes, built-ins, 1 3/4 baths, walled yard, pitched roof, convenient location. 621 Maxine NE. Gabaldon, 298-6445.
- HAM RADIO GEAR, complete 540 watt AM/CW Station, 10-80 meters, transmitter; receiver, antenna, coax., \$425. Grab, 299-0015.
- LIMED OAK dining table; four 9" leaves, 6 chairs, \$100; matched desks and mirror; matched tables. Chavez, 256-3754.
- 16-FT. BOAT and trailer, \$70. Beatrice, 298-0204.
- MOTORCYCLE, HONDA, 150cc, 140mpg, 4,900 miles, \$375; dbl. size mattress & boxsprings, \$25; stereo, AC; Stereo-TV comb., \$175; den furniture. Chandler, 298-1114.
- .357 MAG. S&W with 2 sets target grips and dies, 12 gauge Savage semi-auto. shotgun, mod. choke. Mautino, 298-6267.

FOR RENT

- 3-BDR. Mankin home, dining room, 1 3/4 baths, close to base and schools, completely redecorated; \$120, plus utilities, available Feb. 1. Miller, 265-1084.

- 2-BDR. house near bases, schools, shopping centers; \$70 per mo., Sanchez, 877-1301.
- 2-BDR., automatic washer, AC, play area, no pets, completely furnished, \$87.50 monthly. 8322 Trumbull SE. Villella 255-7416.
- 2-BDR. APARTMENT NE. Frye, 268-9724.
- DELUXE 3-BDR. unfurnished apartment, 1 3/4 baths, garage, yard, carpets, drapes, range, refrigerator, central heat, AC, NE Heights. \$135. Stone, 298-4620.
- 2-BDR. APARTMENT, stove and refrigerator, AC, washer rough-in. \$67.50. See at 416 Alcazar SE. Williams, 268-4870.

WANTED

- Working girl to share luxury furnished apt.; swimming pool, close to Sandia Base. \$67.50 per month incl. utilities. Available Apr. 1. Foster, 299-4290 after 5.
- PLAYER PIANO in any condition, working or not. Especially an "Ampico," but any will do. Sander, 299-5761.
- TO TRADE: Hay for gentle riding horse. Roth, 877-4997.
- GOOD HOME for six-month-old Collie sable and white female, all shots. Eiffert, 898-0324.
- NEEDED 1 bugle for Boy Scout Troop 185. Smith, 282-3430.
- PICK-UP 1964 or 1963 Chev. V-8 standard transmission, 1/2 or 3/4 ton. Everett, 298-3994.
- NORTH VALLEY carpool, Candelaria-Rio Grande area, needs two more drivers. Fraueglass, 345-0119.
- To join car pool or ride from Gun Club Rd. and Coors SW to Bldg. 880 area. Rosebeary, 877-1706.
- KODAK RETINA IIIC camera. Adams, 268-5943.
- RETINA IIA camera, with power zoom, telephoto lenses. Butler, 299-5626.

LOST AND FOUND

- Men's Safety Glasses
- Ladies Prescription (bi-focal) Glasses
- U of Arkansas Class Ring
- Ladies long black glove
- Ladies black leather glove
- Ladies white glove
- Men's reading glasses
- 7 keys on ring
- Pr Men's leather gloves
- Pr Men's gray gloves w/leather palms
- Men's prescription glasses in case
- Men's prescription glasses w/rust color frames
- Pearl & Crystal cluster earring
- FOUND**
- Parker pen
- Call lost and found, 264-2757, Bldg. 610.



INVITING SANADO CLUB members to join them for tea Tuesday, March 8, are (l to r) Mrs. Andrew Fuller, decorations co-chairman; Mrs. Myron Hock, tea hostess; and Mrs. Daris Fuller, decorations co-chairman. The event will feature a style show, art exhibit, and choral selections.

Sanado Club Plans 'Day of Art' Fashion Show, Tea, Painting Exhibit

Some 250 Sanado members are expected for the gala "Day of Art" tea, fashion show, and art exhibit scheduled Tuesday, March 8, at 1:30 p.m. at the Coronado Club.

A "Portrait of Fashion" will be moderated by Mrs. G. C. Hollowwa featuring spring finery and hats from a local dress shop. Sanado Club members will be models.

Decorations for the occasion will include an exhibit of paintings by the two Sanado Club art groups. The choral group will present a selection of songs during the program.

Sherry, tea, and punch will be served. Reservation cards should be mailed to Margaret Brooks, 6913 Shoshone NE, by next Friday.

Swinging Weekends Set . . .

'Theater Night' Tomorrow at Club, St. Patrick's Ball Scheduled Mar. 12

Weekends will be swinging at the Coronado Club for the next few weeks. A full schedule of Saturday night events are set and special Social Hours-Friday buffets are planned.

Tomorrow night, Club members will be treated to "A Night at the Theater" with special entertainment by the Showmakers. An old-time melodrama, "He Ain't Done Right by Nell," will be presented just for laughs—hiss the villain and cheer the hero.

The evening starts with a prime rib dinner from 7 to 8:30 p.m. The performance is scheduled from 8:45 until 9:45 and the Phil Grahame combo will provide music for dancing after the show. Cost to members is \$3.50, guests \$4.

On Saturday, March 5, teen-age sons and daughters of Club members will blast off with the monthly "Teenage Go-Go." Spaghetti buffet will start at 6:30 p.m. followed by dancing at 7:30 with the Us Four combo at one end and the Kings and I group at

the other. Somewhere in the crossfire, the kids will twist, frug, monkey, etc. Cost is 50 cents a head.

On March 12, the Irishmen have their night along with others who admire corned beef and cabbage. It's the St. Patrick's ball, an annual event at the Club for the wearing of the green. Dinner starts at 7 p.m. and dancing to Sol O'Chavez begins at 9. Reservations needed for this one. Call 264-4561. Cost is \$3 for members, \$3.50 for guests.

Other Club Activities

Social Hours

Tonight the Social Hour will feature the seafood buffet. Tommy Kelly's trio will provide the music. The buffet costs \$1.25 for adults, \$1 for children.

Next Friday the Rex Elder group will make the music and the chicken buffet will be served.

Tommy Kelly will return Friday, March 11, for the popular chuckwagon roast beef and shrimp buffet.

On March 18, the adults will try the go-go after the Mexican buffet. Max Apodaca will play for the Social Hour and the go-go business starts at 8:30 p.m.

Bridge

The Ladies bridge group will meet at 1:15 p.m. Thursday, March 3. For reservations, call Mrs. Hickerson, 268-7605, or Mrs. Rarrick, 299-9371.

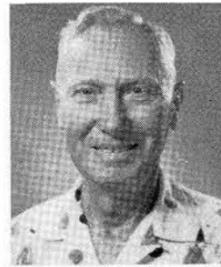
The Duplicate Bridge group will meet for their regular meeting Monday, March 7, at 7 p.m. A membership party and social hour will be held the following Monday, March 14, starting at 6:30 p.m.

Retiring . . .

Cayce Lawrence, a Sandia employee for 16½ years, will retire the end of this month.

Cayce has worked as an optical systems technician in the Range Optics Division 7224 for the past four years. Before that he was a mechanical inspector and then an inspector in quality assurance.

Cayce reports that he and Mrs. Lawrence plan to spend some of their leisure time traveling and fishing. They will continue to reside at 304 Wyoming, NE.



Ralph D. LePore will retire the end of this month after almost 14 years as a Sandia employee.

Ralph has been a stockkeeper in Instrument Service Section B 4615-2 for the last five years. Before that he was a mechanical inspector for approximately eight years.

Ralph's current plans are to devote about half of his time to wholesaling fiesta dresses which are made by a firm in which Mrs. LePore is a partner. He will also devote some time to fishing and doing some work on their residence at 5906 Aspen, NE.



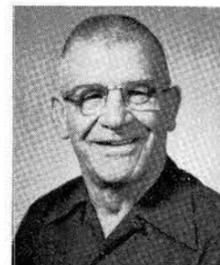
Sumner E. Lane will retire the end of this month after 14½ years of service with Sandia.



Sumner has been involved with telemetry work in field testing since joining Sandia. During his career at the Laboratory, he has participated in a number of tests and visited all of the test sites in this country with the exception of Holloman AFB.

Mr. and Mrs. Lane plan on maintaining their home at 632 Cardenas, SE. They are thinking of taking several trips to visit relatives in California and Oklahoma. Sumner also plans on devoting more time to his hobbies of photography and ham radio.

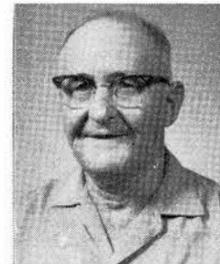
Ramon Archibeque will retire Feb. 28 after almost seven years as a janitor at Sandia Laboratory.



Ramon plans to do some hunting and fishing and to spend more time with his three married sons. He will also help Mrs. Archibeque with some plans she has for the house.

Mr. and Mrs. Archibeque live at 1333 Boatright, NE.

Carlos Chavez will retire the end of this month after 11½ years with Sandia.



Carlos has worked with the janitor service group since joining Sandia in August 1954.

He plans on visiting his married daughter in California and helping his son-in-law with some carpenter work. On his return to Albuquerque, Carlos intends to plant a vegetable garden and spend more time with his three sons, two daughters and thirteen grandchildren here.

Mr. and Mrs. Chavez live at 1308 Saw Mill, NW.

Sandia Authors

C. D. Taylor (1425) and R. H. Duncan, New Mexico State University, "The Signal Produced in a Monopole Antenna by the Gamma Flux from a Nuclear Explosion," January issue, IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION.

C. W. Harrison, Jr. (1425) and R. W. P. King, Harvard University, "Current Distribution and Impedance Per Unit Length of a Thin Strip," March issue, IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION.

C. L. Stoner (2452), "A Program for Evaluating Tool and Gage Manufacturers," November 1965 issue, THE TOOL AND MANUFACTURING ENGINEER.

Juan Yguerabide (5122), "Generation and Detection of Subnanosecond Light Pulses: Application to Luminescence Studies," December 1965 issue, REVIEW OF SCIENTIFIC INSTRUMENTS.

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LAB NEWS

FEBRUARY 25, 1966



WE VISITOR—K. A. Smith (left), Director of Personnel (3100) and R. B. Powell (right), Vice President 3000, are shown here with James A. Hosford, Personnel Director of Western Electric Co. Mr. Hosford was briefed on Sandia's training programs during a recent two-day visit.

Sandia's Safety Scoreboard

Sandia Laboratory:

68 DAYS

2,380,000 MAN HOURS

WITHOUT A
DISABLING INJURY

Livermore Laboratory:

54 DAYS

271,460 MAN HOURS

WITHOUT A
DISABLING INJURY