

SANDIA LAB NEWS



VOL. 20, NO. 23, NOVEMBER 15, 1968

Sandians Donate Time and Know-How For Vietnam Christmas Movie

The red light went on and the motion picture camera began to record the scene in the brightly-lit office. The characters varied — men, women, children, even pets — but the dialogue always included the expressions "Merry Christmas" and "we miss you."

The movie is a unique community effort on behalf of the Air National Guard 150th Tactical Fighter Group, serving in Vietnam, so that its members can "see" their families for Christmas. Almost all of the Guardsmen are from Albuquerque and many are on military leave from Sandia Laboratories. Nine Sandians contributed their professional know-how as well as hours of their spare time to carry out the project.

The idea originated with Ralph Looney, assistant managing editor of the ALBUQUERQUE TRIBUNE. Pentagon approval was obtained with the stipulation that the film be limited to the families of men in the combat zone (some members of the 150th are serving in Korea). The newspaper provided the 16mm sound black and white film — some five miles of it — and the Motion Picture Section of the Air Force Special Weapons Center agreed to process the film.

H. Wilson Maglidt, manager of Photographic Services Department 3450, and members of his production crew offered to rehearse the families, operate the camera, and handle the sound equipment. R. S. Booth, W. R. Geck, W. W. Graving, M. W. Hancock, E. W. Harris, W. P. Mahaffey, R. A. Matthews, and N. E. Moore (all of Division 3454), and Mr. Maglidt rotated on these pleasant chores.

It took 16 sessions to photograph the 252 families (10 of these families have two sons with the unit in Vietnam). The men worked on their own time three evenings a week from 7:15 to 11 p.m., and weekends from 9 a.m. to 4 or 5 p.m., but all were touched by the response of the families and the knowledge of how much the movies would mean to the servicemen.

Wives and mothers of the servicemen usually appeared first in the three-minute sequence, followed by other family members. "One little boy was extremely shy," Mr. Maglidt recalled. "Eight times during the sequence his mother said, 'Come here and speak to your Daddy.' He never would get within camera range."

Another proud mother got her young

son to take halting steps across the coffee table which hid the microphone. Daddy will hear those first steps as well as see them. Another boy was reluctant to face the camera, but Daddy heard all about how the youngster tried gargling with orange juice with disastrous results.

Many of the wives said they were looking forward to meeting their husbands in Honolulu on leave.

Mr. Maglidt singled out one wife as "the most unselfish woman I have ever encountered." He explained, "She spent the entire time telling her husband to get out of the maintenance shop (where he works) and relax, and to take what money he can spare to see that part of the world." Another young wife held a card with her telephone number in front of the camera and said, "... in case you've forgotten the number, I'm there all the time."

Among other family members the topics of conversation frequently included sports, school, hunting, and New Mexico's lovely fall scenes.

When the film arrives this month at Tuy Hoa, 250 miles from Saigon, the 600-foot reels, each with messages from six families, will be shown in shifts to the servicemen.

A LIFE magazine reporter-photographer team has filmed part of the community effort in Albuquerque and will accompany the movies to their destination. One of the servicemen to be interviewed by this team is Major K. A. Sarason, who is on military leave from Sandia.

ASME-UNM Meet Underway Nov. 15-16

It's not too late to attend part of the Ninth Annual Technical Symposium sponsored by the New Mexico Section, American Society of Mechanical Engineers, and the University of New Mexico.

The banquet tonight will be held at Western Skies Motor Hotel and will feature a talk on "Control of the Sea Lamprey in the Great Lakes," by W. F. Carbine, regional director, U.S. Bureau of Commercial Fisheries, Ann Arbor, Mich.

Session III will start tomorrow at 9 a.m. at UNM Popejoy Hall and will include a summary paper presented by former Governor Jack M. Campbell.

Theme of the symposium is "Responsible Technology—A Mandate for Engineering."



SAFELY RECOVERED from the ocean floor, two SNAP 19 fuel capsules are examined by (l to r) Bob Luikens (9521), Bill Gaines (3312) and John Adams (AEC/ALO) prior to shipment in a special container to Mound Laboratories. The two capsules, valued at \$700,000, survived rocket launch abort and almost six months under the sea in good shape. The cases around the plutonium 238 were undamaged.

Navy Recovers SNAP 19

Sandians Play Major Role in Undersea Capsule Recovery

After a team of Sandians located on Sept. 27 the missing SNAP 19 radioisotopic fuel capsules from an aborted Nimbus B satellite launch, the U.S. Navy had responsibility for recovery operations. (See LAB NEWS, Oct. 18 issue.)

Robert J. Luikens of Isotope Projects Division 9521 played a major role in the recovery of the \$700,000 capsules. Bob spent more than 32 hours in the Star II submersible at about 300 feet depth near San Miguel Island off the coast of California locating and identifying the capsules.

At one point, Bob used the manipulator claw of the Star II to separate the capsules from the rest of the debris so that divers would have little difficulty in identifying the capsules during the actual recovery.

As Sandia's project engineer for the SNAP 19 (Systems for Nuclear Auxiliary Power), Bob was the most knowledgeable man at the recovery scene on the SNAP 19 generator configuration. The missile carrying the satellite was intentionally destroyed by the Pacific Missile Range safety officer at Vandenberg AFB when it veered from its flight path shortly after being launched. Although the debris had lain on the ocean floor since May 18, the various components of the generators could still be identified by Bob.

William Gaines of Health Physics Division 3312 was also on board the U.S. Navy salvage ship, and performed the radiation monitoring of the recovery operation.

A number of factors plagued the recovery operation — a three-day storm, an accident with the first submersible, the DOWB, which brushed against the SNAP 19 generator debris, and two incidents in which "mother ships" dragged anchors through the debris.

Bob Luikens was acting not only as Sandia's project engineer for the development of the SNAP 19 but also as the safety representative of Aerospace Nuclear Safety Department 9510 which has responsibility for the overall safety of SNAP systems.

As designed, the SNAP 19 proved adequate to withstand launch, destruct, and over four months of exposure to the corrosive effects of sea water. The graphite heat shields that covered the capsules were still in good condition and the super alloy around the plutonium 238 fuel was intact.

Still, Bob was not sure of this at the time of the recovery. He suggested a special "treasure chest" to hold the capsules while they were being hoisted to the surface. The heavy steel chest was fabricated on board the salvage ship.

Rather than risk damaging the capsules with the claw of the Star II submersible, Bob directed divers to pick the capsules off the ocean floor carefully with their hands (which were encased in heavy protective gloves).

Bob also indicated to the divers where other pieces of satellite debris were located which NASA officials wished to recover.

Bob spent as much as eight hours at a stretch in the cramped 60-inch diameter interior of the Star II during the recovery operation. He had also made two dives in the first submersible, the DOWB, during Sandia's search operations.

Although the inside of a submersible is not the most comfortable place in the world, the novelty of the strange undersea environment and the excitement of the project compensated somewhat for the discomfort. Also, one has to be somewhat abstemious during the long stretches in the submersible, Bob says. "No coffee, no snacks, no facilities."

Back at Sandia now, Bob continues with his work on the SNAP 19 generators. Another launch of a Nimbus B satellite carrying two more SNAP 19 generators is scheduled for next spring.



BOB LUIKENS, Sandia's project engineer for the SNAP 19 program, climbs into the Star II submersible. Bob played a major role in the U.S. Navy's recovery of two SNAP 19 fuel capsules from about 300 feet depth off the California coast.



COMMUNITY EFFORT to get filmed messages from families in Albuquerque to National Guardsmen serving in Vietnam received a helping hand from members of Sandia's Photographic Services Department 3450. Among those providing professional assistance on their own time were (l to r) R. A. Matthews, W. P. Mahaffey, E. W. Harris, shown during a rehearsal with Ralph Looney of the ALBUQUERQUE TRIBUNE (extreme right).

Hurts Aren't Funny

Caution and Sense Can Prevent Costly Do-It-Yourself Accidents

"Do-it-yourself" home repairs, improvements and maintenance may very well represent a considerable saving to the individual home owner, but such activity last year cost Sandia Laboratories over \$150,000.

That is the cost of production days lost in 1967 because of off-the-job injuries, many of them the result of carelessness or misuse of power tools and equipment, ladders, hammers, screwdrivers and a wide range of thingamajigs found around the home. In fact, more than 70 percent of time lost due to injuries was the result of off-the-job accidents.

While no one would suggest "do-it-yourself" activities be curtailed, the Safety Education Division 3352 believes that with a little common sense and a lot of caution the tremendous cost (both to Sandia and the individual) of off-the-job injuries could be sharply reduced.

A brief look at some recent case histories of injuries sustained by Sandia employees while doing perfectly ordinary things around the home shows how a little common sense or caution could have prevented costly accidents:

One employee lost five days at work after stepping on a nail while building a patio; another spent 10 days at home after hitting himself with an ax; another trimmed his foot along with the grass while using an electric edger; and one Sandian, believe it or not, was out 21 days as a result of a leg fracture incurred while taking a walk.

The list goes on and on, and there is the impression that the longer the list the

more ordinary the circumstances of the accident — which is precisely the point. Figures for 1967 show that the most frequent off-the-job injuries are those caused by slips and falls. The second most frequent cause is lifting, usually relatively light objects such as cinder blocks, trash cans and babies. People somehow manage to fall from trees, porches and ladders in great numbers, and the bathtub continues to be the most dangerous — and the most slippery — invention since the banana peel.

There is nothing amusing, however, about the physical and financial hardship brought on by such ordinary accidents, and a few basic do's and don'ts can prevent a household task from becoming the occasion of injury. For example: do make sure that the safety guard is in place when using a power tool, do disconnect the TV before replacing the defective tube, don't undertake strenuous jobs when you are tired or out-of-shape, don't try to lift an object (no matter how light) while in an awkward or out-of-balance position, and don't climb a ladder that is not securely placed.

Finally, a word of warning to those who are trying to improve their physical condition through exercise. Strenuous exercise by those not accustomed to it can be as dangerous as sawing off a tree limb while sitting at the end of it. One hapless employee discovered this recently when he lost several days as a result of fracturing his ankle while exercising. The ninth Yoga position — the *Dancer* — definitely is not for novices.

Gear-Carrying Dog

Solves Problems for Lazy Hikers



20 POUNDS of gear on this Alaskan malamute's back makes hiking a pleasure for owner Jack Hickman (1651).

Back-packing into the wilderness would be great—if only you could find someone to carry your gear. Jack Hickman (1651) may have found the answer in his dog.

"Chenook," an 18-month-old Alaskan malamute, is training for an overnight camp out. Jack is willing to carry his own sleeping bag, but the rest of the gear hopefully will be in the dog's red nylon pack.

The Hickman's got the dog last July and Jack was anxious to see whether Chenook would instinctively pull a load. He made a simple harness for the dog and immediately Chenook strained against the load (two children in a wagon).

The next step was making the nylon pack. Chenook sniffed at the contraption once, got a pep talk, and has been a model pack animal ever since.

"The side pockets have a divider," Jack says. "Lightweight gear goes into the back pockets and the heavier items into the pockets over the dog's shoulders. The pack will lean to one side if it isn't evenly balanced, and I've found that readjustment of the load is usually necessary."

Jack and Chenook have been on a number of one-day hikes, covering up to 10 miles. The dog is now carrying 20 pounds, but in Alaska working dogs of this type frequently carry as much as two-thirds of their weight. Chenook weighs 85 pounds.

During the week, Jack takes the malamute out on the mesa and runs him two miles. "This keeps his muscles in shape, and it also keeps his pads toughened against the sharp rock and cactus, which can be a problem here," he says.

This winter Jack plans to let the dog pull his children uphill on their "flying saucer." Both the children and the snow-loving dog should have fun.

Only Dragons Should Smoke

Cigarette smokers are estimated to have a 70 percent higher risk of early death from heart disease than do nonsmokers, the American Heart Association reports. The more cigarettes smoked, the higher the risk.

Eighteen million Americans have stopped smoking cigarettes, according to U.S. Public Health Service estimates. Their risk of heart attack will soon drop to the level of nonsmokers, the American Heart Association says.



DON ALBERTS spends evenings and weekends this time of year hunting deer in the nearby mountains with a bow. When he misses, he figures it's the donkey's fault. The burro gets yelled at a lot. From left, the burro and Don.

Bowhunter Don Alberts Works at Stalking Game; Finds Other Rewards

After 10 years of hunting deer with a bow and only making one kill, Don Alberts (3134) is still enthusiastic about the sport.

"It's not whether you bring one home," he says, "it's how you play the game — or something."

For the past month, Don has been playing the game after work and on weekends high in the Sandias and Manzanos. Don lives near San Antonito in the Sandias and (if he hurries) he can make it home, change into his camouflage gear, grab the bow and quiver, and get into position for one shot before dark.

Last week he almost got one.

"I had this deer trail to a waterhole all staked out," he says. "I got there before dark and settled in to wait. My mistake was sitting down. All of a sudden there was one of the biggest bucks I've seen coming down the trail less than 20 yards away. I didn't hear him coming so I was surprised. Anyway, I decided to try for a shot without standing up. Well, nuts, I missed by about a foot."

Don uses a light hunting bow and steel-

tipped broadhead hunting arrows. Using a bow, the hunter has to get very close to the deer to insure a kill. For Don, this is the challenge.

It means obtaining an intimate knowledge of terrain and the habits of the game. It means waiting quietly at the proper place. And it means spending a lot of time in the mountains.

For extended hunting trips, Don takes a couple of donkeys loaded with camping gear. In the high country, the burros mean the difference between a luxurious camp or a spartan one. "They also let me yell a lot," Don says. "Burros are not known for their cooperativeness. Besides, I can always blame my missed shots on them."

For some of these trips, Tom Rhinehardt (2354), Duane Hughes (3134) and Herb Jewett (4232) join in the bowhunting.

The Sandians agree that this kind of hunting gives the deer a little better chance, makes it more sporting somehow.

"After all," Don says, "a bowhunter should be a little smarter than the deer. I just have to find some dumber deer."

Whistle Stop Man —

Referee Needs Thick Skin, Stout Heart

Pity the poor referee! Everybody yells at him, nobody appreciates him and, according to the fans, he never does anything right. He is a most unhappy man.



TOM TOWNE (5133) may spend his weekends being booed by irate fans but he figures the guff is worth it. Tom, an enthusiastic promoter of high school athletics, officiates football and basketball.

Not so! says Sandian Tom Towne (5133), who spends many of his weekends officiating high school basketball and football games—and likes it. While Tom admits the job requires a thick skin, he finds it both rewarding and challenging. "I enjoy high school sports and I feel like I'm helping those kids by getting out there and doing the best possible job," he said.

Tom, who is currently president of the Albuquerque chapter of the New Mexico High School Activities Association, is one of a dozen or so Sandians who brave the wrath of irate fans each week because they enjoy "helping those kids." Tom says some of the best officials in the Albuquerque area are Sandians. "Maybe that's because we do it because we like it, not because of the money," he suggested.

Also a Little League baseball and football coach, Tom's interest in sports goes back to his high school days where he was good enough to win college athletic scholarships, and to Oklahoma Baptist College where he played basketball and baseball and coached intramurals. He continues to be an active competitor, if on a somewhat more sedate level. Last year he was the state horseshoe pitching champion, and this year he and George Ingram (5132) placed third in the Laboratories Doubles Table-Tennis Tournament.

By the way, if any loyal fans take exception to the calls in the recent Sandia Labs-Sandia Base championship football game (which we lost), take your gripes to Tom. He was the guy behind the whistle.

SANDIA LAB NEWS



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Sandian Appointed to Governor's Atomic Energy Advisory Council

Bruce J. Held of Environmental Health and Medical Services Division 8215 has been appointed by Governor Reagan to serve a two-year term as a member of the Governor's Advisory Council on Atomic Energy and Radiation Protection. The Council was established by the California Legislature in 1959 to advise the Governor and the Legislature on state-related aspects of nuclear energy. Its membership includes representatives from 11 government, professional and industrial organizations located throughout the state of California.



In addition to membership on the Council, Bruce will also serve as its chairman.

The Council's responsibilities include advising the Governor on ways to improve understanding between the nuclear industry and the public about atomic power plants in California. The Council also prepares recommendations on medical uses of x-rays. This information will be used in legislation on the licensing of x-ray technicians. A further long-range project is the standardization of interstate laws in the Western region on the use, handling and safety of nuclear industry materials. Emphasis will be placed on California's participation in the newly formed Western Interstate Nuclear Compact.

Before joining Sandia Laboratories Livermore in June 1967, Bruce worked for 11 years as an industrial hygienist in AEC

installations and private industry. He is a member of the American Industrial Hygiene Association, the Health Physics Society and the national honorary Scientific Research Society of America. Several of his articles have been published in the AMERICAN INDUSTRIAL HYGIENE ASSOCIATION JOURNAL. In 1967, he was appointed Regional Coordinator — Western States of the American Industrial Hygiene Association.

Bruce received a Bachelor of Science degree in biology in 1955 from New York's Cornell University. He was awarded a Master's degree in Public Health — Industrial Health from the University of Michigan in 1964 while studying under an Atomic Energy Commission Fellowship.

Sandian Honored with Analytical Chemistry Award

David R. Fielder of Material Science Division 8311 was a recent winner of an Undergraduate Award in analytical chemistry. Sponsored by the American Chemical Society's Division of Analytical Chemistry, the national award is given to outstanding undergraduates in recognition of their scholastic achievements as well as their exceptional interest and aptitude for analytical chemistry. Announcement of the award was published in the October 1968 issue of ANALYTICAL CHEMISTRY.

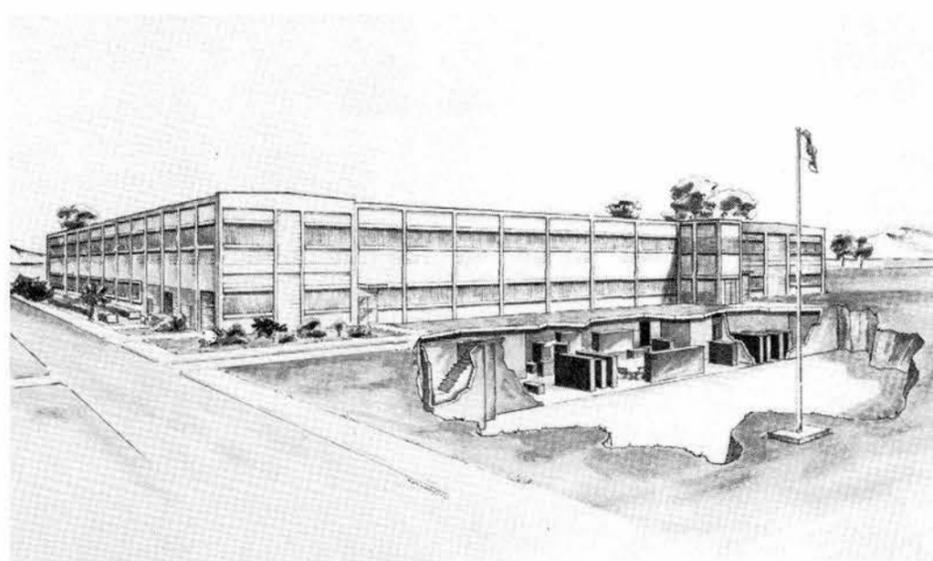
Dave joined Sandia Laboratories Livermore last month after receiving his Bachelor of Science degree in chemistry (with honors) from the University of Washington in Seattle.

LIVERMORE NEWS

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ARTIST'S CONCEPT of underground computer facility under construction at Sandia Laboratories Livermore shows relocation of equipment after site is completed in November 1969. The new facility will house three computers—a CDC 6600 and 3600, and an IBM 1401.

Construction Begins on Underground Computer Facility at Livermore

The AEC has awarded a \$573,300 contract to Payne Construction Co. of Oakland, to build a 14,400-square-foot underground computer facility at Sandia Laboratories Livermore. Project engineer Bill Thompson (8251) expects construction of the facility to start this month with computer relocations scheduled for November 1969.

The floor of the one-story, 80 x 180-foot area (the size of the courtyard inside Bldg. 912) will be 16 feet beneath ground level, matching the depth of the basement in the south wing of Bldg. 912. Walls will be of reinforced concrete. The roof — of composite construction — consists of concrete poured onto a corrugated steel deck supported by steel beams. This construction leaves nearly 10,000 square feet of floor space free of support columns. Future above-ground expansion of Bldg. 912 is possible because the new facility uses the same structure module as the existing building.

When completed, the new facility will house three machines — a Control Data Corporation (CDC) 6600 computer (now temporarily housed in Bldg. 912) that will be used to perform scientific calculations in support of the Laboratories research and development efforts; a CDC 3600 computer for processing engineering support data, and an IBM 1401 computer for processing input/output information. In addition, all data preparation equipment such as keypunches and Electronic Accounting Machines (sorters, collators, interpreters) will be located in the facility. Study areas with keypunch equipment have been planned for programmers, and space has been allocated for magnetic tape storage and other purposes. An elevator will provide access between the computer facility and the first and second floors of Bldg. 912.

Plans for the top surface (ground level) of the facility include a courtyard which employees can use for noontime activities.



CERTIFICATE OF RECOGNITION—C. H. DeSelm (8200) and receptionist Ruth Bauman (8212) adjust the certificate of recognition received recently by Sandia Laboratories Livermore for its participation and support in the 1968 Youth Opportunity Campaign. The certificate is signed by President Johnson and Vice President Humphrey and was accompanied by a letter of appreciation from the Mayor of Oakland, commending Sandia for its part in the program. 1968 marked the fourth year of participation by Sandia Laboratories Livermore.

Take Note

Mt. Diablo Subsection of the San Francisco American Society of Mechanical Engineers (ASME) will hold its November meeting on the 21st at Hap's Restaurant in Pleasanton. John P. Ford, supervisor of Division 2321 at Sandia Laboratories Albuquerque, will speak on "rolamite." He will present an introduction to the rolamite theory, discuss geometric features, applications, manufacturing techniques, and Sandia's role in applying the principles of rolamite. He will also have rolamite models on display.

Social hour begins at 6 p.m. followed by dinner and the meeting at 7. For reservations or further information, contact Louie Tallerico (8131) ext. 2524.

J. F. McManus, supervisor of Technical Art Section 8233-2, recently spoke to a group of teachers and administrators at the Livermore High School. In his talk, "Art in Industry," he described industrial art and other graphic arts. The talk also provided guidelines for a business or industrial art course in a high school curriculum.

F. J. (Jerry) Maloney, supervisor of Environmental Test Division I 8128, was guest speaker at a recent meeting of the Rotary Club in Pleasanton. He discussed "Environmental Testing at Sandia," and included in his presentation the showing of a related film.

T. K. O'Kelley of Safety Engineering Division 8255 spoke at the Explosives Safety Engineering Conference, an annual meeting of safety engineers in the AEC/ALO complex, at Mound Laboratory in Miamisburg, Ohio. He discussed "Departure of Transportation Regulations for Shipping Explosives and Other Hazardous Materials."

Group programs offered by Chabot College Planetarium free of charge may be of interest to employees who are members of community organizations. Any of the regularly scheduled programs for students or the current monthly evening programs are available. Reservations to attend a Planetarium program as a group may be made through the Community Services Office at the College, 782-3000, ext. 415.

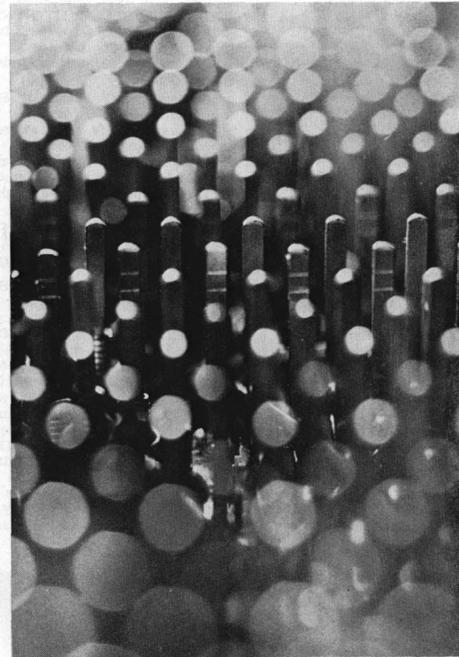


NOONTIME AT LIVERMORE is card-playing time for many Sandians. From the thoughtful, shocked, happy, and frustrated looks on their faces, it's clear the noontime card games are never dull. Bridge is by far the most popular game.

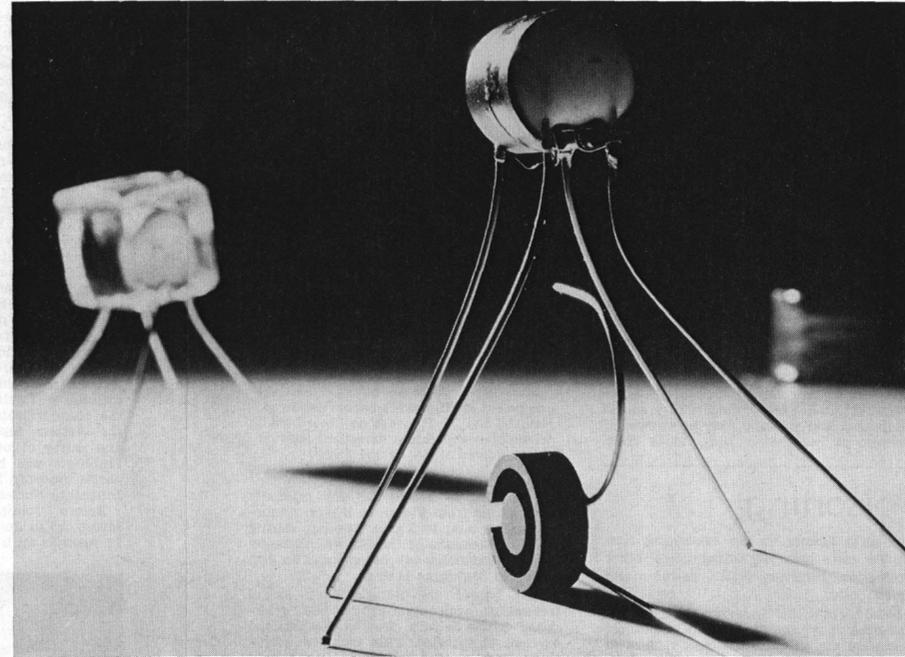
TAKE ANOTHER LOOK



Multi-stage Fluidic Amplifier



IBM 7090 Memory Units



Miniaturized Transformers

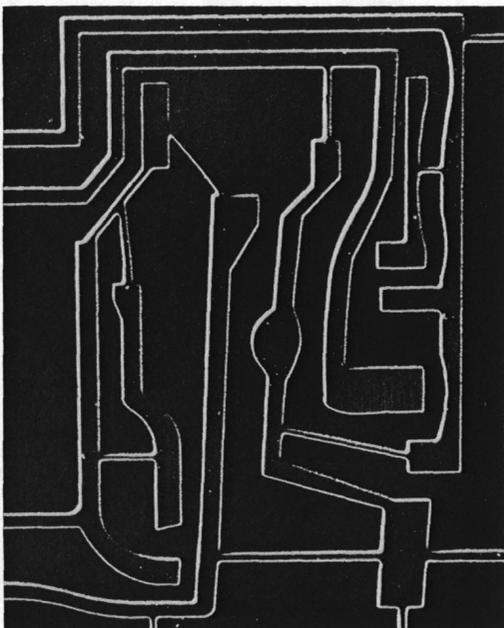
Nowadays abstract art is pervasive. It decorates homes, hangs in museums and adds color to schools, restaurants and offices. No one questions it anymore or wonders what it is all about.

In a research and development laboratory art is not even a minor concern. But elegance of design, an arrangement of components, or the purposeful geometry of a printed circuit

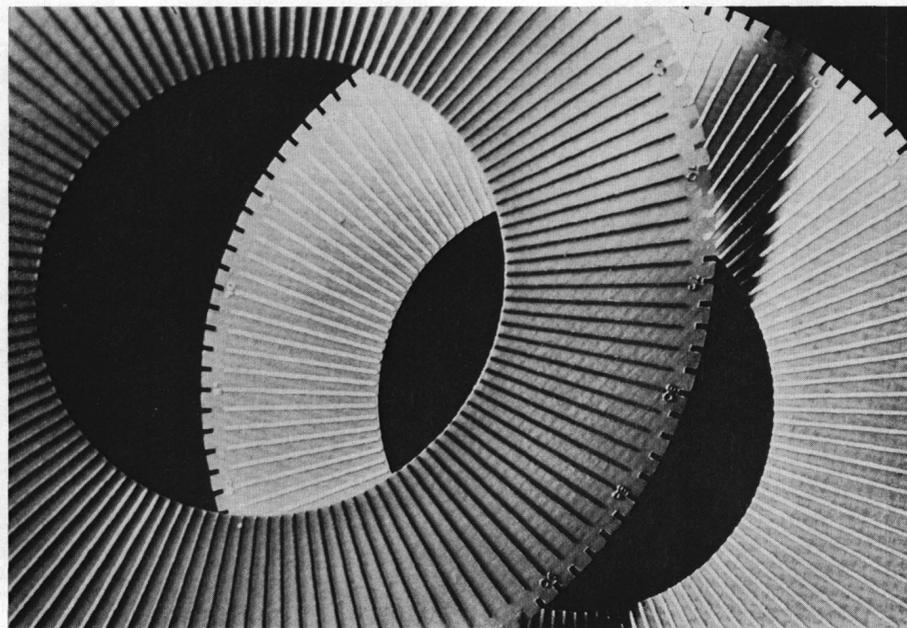
can display a beauty of their own — where form truly follows function. These things abound at Sandia.

LAB NEWS photographer Bill Laskar, who prefers to photograph people, is also intrigued by things mechanical. He sees them in terms of light and shadow, form and line. The result can be a kind of abstract art. Some of his pictures are reprinted here.

Photochemical Milling on Circuit Board



Etched Circuit Commutators



1108 Univac Wiring



Retiring

Burnice L. (Slim) Workman, a plumber in Mechanical Section 4513-2, will retire Nov. 30. He joined Sandia at Salton Sea in October 1950. In 1961 he transferred to Albuquerque and worked in Area III as a mechanic. He has been in his present job about two years.

Slim is taking advantage of Sandia's early retirement plan. "I've worked all my life and this early retirement will give me several extra years to catch up on what I want to do," he says.

Mr. and Mrs. Workman have five children — all grown and living away from home. "My wife and I like kids; we like having little ones around us. Since ours were gone we adopted three more children — a 5-year-old Portuguese boy who is now 14; a 2-year-old Spanish girl, now 9; and an infant Spanish girl, now 19 months. I'm going to take these kids back to Arkansas and make 'hillbillies' of them," Slim says.

The Workmans are moving back to Arkansas to make their home. Friends can keep in touch by writing to them at General Delivery, Eureka Springs, Ark. Slim says he is going to open his own automotive shop and when the notion strikes him, will hang a sign on the door, "Closed — gone fishing."

Lucille H. Long, a budget clerk in Computer Programming, Budget & PI Section 7634-1, is retiring the end of this month. She was employed by Sandia in October 1954. Previously she worked for 12 years as a bookkeeper with a local firm.

Mrs. Long has four children — two living in Albuquerque, one in Nevada and one in California. She has 11 grandchildren, "and I adore them all," she says. Lucille also has two "sort of adopted" children that she helped through high school.

Lucille belongs to several organizations and has a number of other interests. "I like to bake, garden and sew, and I'm going to take up golf again. I'm also going to do some visiting with family and friends." She is involved with sorority, church and Rebecca Lodge activities and also hopes to do some volunteer charity work. "I'm looking forward to a full and active retirement."

Clyde J. Northrup, Sr., of Instrumentation Engineering Division 7217, will retire Nov. 30. He has been with Sandia almost 20 years, since July 1949, and has worked the entire time in Field Test organization. Before coming to Sandia, Clyde had been with civil service doing instrumentation work for the Air Force in Honolulu and Oklahoma City.

Mrs. Northrup, who has taught school on Sandia Base for 18 years, will retire at the end of the school term next year. At that time, the Northrups will travel to Canada. They own a 22-foot Air Stream trailer and may join a caravan for this trip.

Mr. and Mrs. Northrup have two children and five grandchildren. Their son, Clyde, Jr., works in Radioactive Material Behavior Division 9511.

Clyde has a 40-foot heated swimming pool in his back yard, which he says he intends to use often. He is an active member of the Elks and Shriner organizations and is a charter member and former director of the Coronado Club.



William T. Smith, a traffic analyst at Sandia, will retire the end of this month. He has a long career — 47 years — in traffic work. He joined Sandia's Traffic Section 4363-2 in June 1957. Before coming to Sandia,

he was traffic manager for six years for Laclede Christy Firebrick Company in St. Louis, and had also been with the traffic department of the Santa Fe Railroad in Topeka, Kans., for 30 years.

Mr. Smith's retirement plans — extensive travel, what else? "My wife and I enjoy traveling — she leaves the details to me — and our first trip will be to Mexico," he says. Mr. and Mrs. Smith have two married daughters and eight grandchildren, living in Santa Fe and Albuquerque. "We are going to remain in Albuquerque; I want to be near my grandchildren and see them grow up," he says.

Mr. Smith has personal business interests that will require his attention, and he enjoys boating with his son-in-law.

Parker B. Burns, Sr., of Administrative Support Section 4643-1, will retire the end of this month. He joined Sandia in May 1952 as an expeditor and six years later transferred to his present job. In his present assignment he works chiefly with Weaponry Training Department 1610.

Mr. and Mrs. Burns have three married children and seven grandchildren. Parker's retirement plans are indefinite. Before moving to New Mexico he was a licensed chiropractor in Indiana. He says he may decide to renew his license and practice part-time.

Mr. and Mrs. Burns are also considering making their home in California for a part of each year. They would still call Albuquerque home and return here for the summer months.

Explosive Ordnance Disposal Symposium Held Recently

The Weapons Application Directorate (1600) hosted an Explosive Ordnance Disposal (EOD) Symposium for military and AEC agencies at Sandia Laboratories, Oct. 29-31.

The meeting was convened to provide EOD agencies with a summary of current activities in this specialized field and to consider the affects of weapon design on future EOD techniques and organizational structure.

Formal panels and presentations included, among other items: an evaluation of manuals and training; projected weapon designs, and AEC/DOD plans for the future of EOD; high explosives R&D; emergency destruction of nuclear ordnance; and radiation detection equipment. Sandia Laboratories coordinator for the meeting was I. M. Moore (1610).

Authors

R. W. Rohde (5133), J. R. Holland (5272), and R. A. Graham (5132), "Shock-Wave-Induced Reverse Martensitic Transformation in Fe-30% Ni," September issue, TRANSACTIONS OF THE METALLURGICAL SOCIETY OF AIME.

R. D. Nasby (5272), "Measurement of the Hall Effect in Metal-Ammonia Solutions," Vol. 49, No. 2, JOURNAL OF CHEMICAL PHYSICS.

L. A. Harrah and R. C. Hughes (both 5113), "X- and Gamma-Radiation Damage to Single Crystal Anthracene," Vol. 5, No. 1, MOLECULAR CRYSTALS.

P. J. Chen (5261), "The Growth of Acceleration Waves of Arbitrary Form in Homogeneously Deformed Elastic Materials," Sept. 8 issue, ARCHIVE FOR RATIONAL MECHANICS AND ANALYSIS.

J. R. Garcia (3260) and W. L. Stevens (1650), "Technical Career Programs in Large Research and Development Laboratories," September issue, IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT.

R. K. Traeger (5411) and A. A. Armstrong (summer hire), "Short Time High Temperature Effects on Plastic Foams," October issue, JOURNAL OF CELLULAR PLASTICS.

Drive Starts Monday For Old Eyeglasses

Sandia Laboratories' annual campaign, "New Eyes for the Needy," will be held in Albuquerque the week of Nov. 18. The drive is to provide eyeglasses and artificial eyes for those who cannot afford them.

Boxes will be placed at each Tech Area gate for the collection of discarded eyeglass frames, old jewelry, and other items containing reclaimable gold and silver. The donations are sent to New Eyes for the Needy, Inc., a non-profit charitable organization. The drive is coordinated by the Sandia Pioneers, a group of persons with more than 21 years service with the Bell System. Chairman for the drive this year is Bert Eich (5439). Assisting the Pioneers are Public Relations Department 3430 and the Security organization.

The donated items are sent to a refinery where the metals are reclaimed and re-deemed for cash. This money is used to purchase glasses and artificial eyes, which are distributed through hospitals and welfare agencies to needy persons in the United States. A deserving individual may also apply directly to New Eyes for the Needy for assistance. Reusable plastic-framed glasses are tested, classified, and sent to medical missions and welfare agencies in Africa, South America and Asia.

Since its founding in 1932, New Eyes for the Needy has helped more than 400,000 persons.

A Girl's Best Friend -- Diamonds or Californium-252?

From the Atomic Energy Commission, bargain basement department, comes news that for the first time the Commission is placing on sale californium-252, one of the world's rarest materials. The price — a mere \$450 billion per pound.

Or, if you tend to be the thrifty sort, you can buy one-tenth of a microgram (one ten-millionth of a gram) for only \$100. The information sources did not specify whether or not Green Stamps were given.

Actually, you couldn't buy a pound of the stuff even if you had a bankroll equal to the total U.S. Defense budget for several years. Until recently, the world's total supply was measured in micrograms. But with "quantity" production of the rare isotope now underway at both Oak Ridge National Laboratory and the Savannah River Laboratory, the Commission hopes to see as much as one gram per year by the early 1970's.

AEC chairman Glenn Seaborg said that californium-252 will have far-reaching application in the fields of medicine and industry, and in research in the area of neutron activation analysis.

The first shipment outside AEC of the radioisotope will be a loan of about 230 micrograms to the M.D. Anderson Hospital in Houston, Texas, for use in a cancer research program.

Ed J. Haut Earns Certificate in Tech Institute Program



Ed J. Haut, a staff assistant in Components Programming Division 7634, recently received a certificate for earning the equivalent of a technical institute degree in Sandia's out-of-hours education program.

He completed all 20 courses in the industrial technology curriculum. He started taking courses in 1961 when the curriculum first became available in the out-of-hours program.

During the first three years of the program, Ed averaged completion of four courses per year.

Ed has been at Sandia almost 12 years working in the production tester programming area. Prior to 1960 he did administrative work for research organizations.

Employee Training and Education Division 3132 offers technical institute level courses in electronics, drafting and design, mechanical and industrial technology. Classes are conducted during noon hours or after work. Students study on their own time and must maintain satisfactory scholastic standing.

Annual Ski Swap

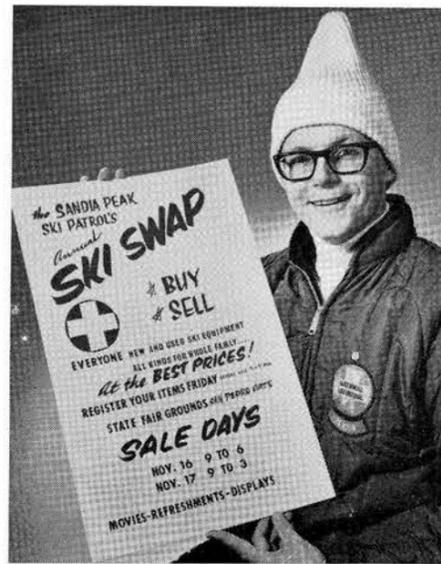
Get Ahead of Season: Buy And Sell Your Ski Stuff Now

Sandians interested in upgrading their ski equipment, or in purchasing skis, poles, boots and clothing for their children will have a chance this weekend during the Second Annual Ski Swap at the State Fair Grounds Flower Bldg. The Swap also provides an opportunity to the skier to sell equipment he is no longer using.

The sale is sponsored by the Sandia Peak Ski Patrol, a volunteer group made up of experienced skiers who devote many hours to rescuing injured skiers and giving first aid.

Pete Stirbis (1548), leader of the 50-man Patrol, explains that the sales commission and small entrance fee are used to support Patrol activities. "With this money," he says, "we purchase bandages, tape, material for making temporary splints, and blankets. Hopefully, we'll have enough money to purchase an additional rescue toboggan for use at the ski area." Patrolmen purchase their own Ski Patrol parkas, first aid kits, and ski equipment, and pay a yearly registration fee to the National Ski Patrol System.

Ski Swap Chairman John Shunny (3432) points out that used or new winter sports equipment and clothing may be registered for sale at the Flower Bldg. today from



PETE STIRBIS (1548) Sandia Peak Ski Patrol leader, urges skiers to buy and sell ski equipment at the Patrol's annual Ski Swap, Nov. 16 and 17. Proceeds go toward medical supplies and rescue toboggans for first aid to injured skiers by the Patrol.

Accidental Poisoning

It has been estimated that from 500,000 to 2,000,000 American children accidentally ingest toxic materials every year. Of this total number approximately 500 children under the age of five die as the result of such ingestion. During the past two years 12 children have died in New Mexico from accidental poisoning, while hundreds of other children survived, but suffered temporary, if not permanent damage. All of these children were at the inquisitive age when nearly everything that can be reached enters the mouth. Of course, at this age these children can neither read, nor have they developed any judgment.

However, this problem is not limited to children. Total deaths from accidental poisoning in New Mexico during 1966 were 29, and during 1967 were 21. Thus, the family that is aware of the danger and takes necessary measures to prevent careless access to any poisonous substance protects members of the family of all ages.

From reports submitted by the National Clearing House, in 90 percent of the cases involving children under the age of five the products are those commonly found in or around the house. Of these cases approximately half of the children ingested medicines, and the other half took household products. Of the number of children ingesting medications about 50 percent of those took aspirin. Three of the 12 deaths that occurred in New Mexico during the past two years were caused by aspirin.

The fatal agents in the remaining New Mexico cases included tranquilizers, other medication, furniture polish, gasoline and a weed killer.

Studies show that over two-thirds of the instances of poisoning involved substances that were not in their customary place of storage, thus providing ease of accessibility. An important contributing factor was transference of products from their original containers to soft drink bottles, cups or glasses which are usually associated with containers of potable substances. These accidents happen most frequently in the kitchen, bedroom and bathroom of the house.

The best advice is to store household products not made to be ingested out of the reach and sight of children, and to return them to their storage place immediately after use. Store medicines and medications in such a way that no child may ever reach them, preferably in a locked cabinet. Give and take medicine only in a well-lighted room, after reading or re-reading the label. Discard all unlabelled bottles and/or containers.

In the event of accidental poisoning, the family doctor should be called immediately. If he is not available, the nearest Poison Control Center should be contacted for advice. In Albuquerque this center is located at the Bernalillo County Indian Hospital.

5 to 9 p.m. — before the sale officially starts — or from 9 a.m. to 6 p.m. tomorrow and 9 a.m. to 3 p.m. Sunday, during the sale. Members of the Ski Patrol, many of them Sandians, will be on hand to give advice to beginning skiers.

Last winter the Sandia Peak Patrol treated 360 accidents during 50,000 "skier-days," which is very close to the national average of injuries. This included everything from placing a bandaid on a cut to splinting a fracture. All Patrolmen complete both Standard and Advanced Red Cross First Aid courses and each year attend a 12-hour refresher course in first aid and Patrol operations.

Speakers

H. D. Sivinski (1740), "Planetary Quarantine Systems," Fall meeting of the New Mexico Academy of Science, Oct. 11-12, New Mexico Western University.

S. J. Buchsbaum (5000), "Recent Progress in Controlled Fusion Research," University of New Mexico Nuclear Engineering Seminar, Oct. 18, Albuquerque.

H. O. Pierson (5412), "Development and Properties of Pyrolytic Carbon Felt Composites," 14th national symposium of the Society of Aerospace Material and Process Engineers, Nov. 5-7, Cocoa Beach, Fla.

L. J. Vortman (9111), "Ten Years of Cratering Research, A Review," American Nuclear Society, Nov. 11-15, Washington, D.C.

D. M. Garst and W. J. Whitfield (both 1742), "Contamination Control, A State-of-the-Art Review," Bell Systems Contamination Control Conference, Nov. 12, Allentown, Pa.

S. W. Key (5162), "A Finite Element Program for Orthotropic Incompressible Axisymmetric Elasticity Problems," Interagency Chemical Rocket Propulsion Group's Seventh Meeting on Mechanical Behavior, Nov. 13-15, Orlando, Fla.

J. W. Poukey, M. A. Gusinow, and J. B. Gerardo (all 5243), "Theoretical Study of a Decaying Helium Plasma"; E. L. Patterson (5242), "Experimental Energy Scaling of a Plasma Focus Device"; E. H. Beckner and D. R. Smith (both 5242), "Neutron Production in Coaxial Discharge Tubes with Superimposed B-Fields"; E. H. Beckner and M. D. Olman (both 5242), "Calculations of Radiative Energy Losses in a Plasma"; M. D. Olman, F. O. Lane and E. H. Beckner (all 5242), "Two-Dimensional Computer Simulation of Axially-Symmetric Plasma Devices with Theta-Directed Magnetic Fields," American Physical Society, Plasma Physics Division annual meeting, Nov. 12-17, Miami Beach, Fla.

C. A. Olson (7221), "Meteorological Instruments," Sandia Base Elementary School, Nov. 11.

R. A. Matthews (3454), "Suicide Prevention and Crisis Center Run by Volunteers," Albuquerque Women's Club, Nov. 15.

D. W. Braudaway (7452), "Experiences with Automation in the Standards Laboratory," Instrument Society of America convention, Oct. 31, New York City.



TONOPAH TEST RANGE (Department 7230) personnel recently enjoyed an outing on Mud Lake (a large dry lake near Tonopah). The Second Annual Mud Lake Rally was sponsored by the Tonopah Trail Riders, a group of Range personnel who enjoy getting out in the hills on their trail bikes. Vehicles at the rally included 23 motorcycles, an Amphicat, a Cat-a-gator, and an airplane. Approximately 90 people

attended the festivities. The Mud Lake Rally lets the wives and children have a chance to ride the bikes, and the men to compete in various games. Contests included barrel racing against the clock, ramp jumping, and drag racing. The rally also provides riders with a chance to test the other bikes present.

Service Awards

20 Years

25 Years



V. A. Harris
9133



H. L. Adams
8245



Barbara Barney
3421



J. C. Conant
9141



H. F. Devaney
2324



V. J. Domme
4511



G. W. Duffield
9253



Leroy Hassebrook
7621



B. D. McConnell
4512



C. A. Monroe
4614



C. D. O'Connor
4623



D. G. Palmer
9124



P. R. Palmer
9226



Sadie Sedillo
4574



J. E. Sieglitz
4516



M. A. Williams
4518

15 Years



A. M. Fine
1514



SINGING BROTHERS and guitar-playing nuns will be featured in "Run Forward Singing." Representing St. Vincent de Paul Society during a recent rehearsal were Larry Kiefer (7344) seated left, president of the Albuquerque chapter, and Ramon G. Lucero (4518).

Larry Kiefer Promotes Unusual Variety Show

A musical variety show featuring 100 nuns and 20 Brothers — this is unique. "Run Forward Singing" will be performed before audiences in Albuquerque and Santa Fe under sponsorship of St. Vincent de Paul Society to raise funds to help the needy in the state. Larry Kiefer (7344) is president of the Albuquerque council.

The show will be presented Nov. 24, 25 and 26 at UNM Popejoy Hall and Dec. 1 at Greer Garson Theater in Santa Fe. There will be a children's matinee on both Sundays.

According to Larry, proceeds from the musical will be used to help needy families, regardless of race, color, or creed, and to provide facilities for a thrift shop where donated items can be sold. "Our Society never gives cash to families we help," Larry explains. "Instead, we purchase food

and clothing for them or perhaps pay their utility bills."

Larry has been president of the local group for two years.

Tickets for "Run Forward Singing" are available at Popejoy Hall, most music stores, and all Catholic churches.

Deaths



M. K. Laufer



Eileen Jones

Maurice K. Laufer, a project leader in Physical Standards Division 7451, died Oct. 28 after a long illness. He was 59.

He had worked at Sandia Laboratories since June 1957.

He is survived by his widow.

Eileen P. Jones (3126), a secretary assigned to Diagnostic Aircraft Operations Division 9252, died Nov. 3 after a long illness. She was 46.

She had worked at Sandia since December 1963.

Survivors include her husband and three daughters.



A. W. Railey
4512



J. A. Rhodes
9423

10 Years

Nov. 15-28

J. L. Miller 4312, Albert Cherino 4513, Florence Gossin 9520, E. I. Opland, Jr. 3253, J. D. Thompson 4513, J. H. Armstrong 7322, B. A. Caskey 1543, Jack Carnohan 4511, Lloyd Rothacker 8222, O. E. Parrish 8223, E. O. Trujillo 4614, Elizabeth Reece 8253, and Ruth Cowham 7630.

Sympathy

To W. C. Purchase (4336) for the death of his son in Albuquerque, Nov. 4.

To E. T. Cook (2355) for the death of his father-in-law in Ft. Smith, Ark.

To M. R. Prucha (2642) for the recent death of his father in Oklahoma.

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

MISCELLANEOUS

- BOWLING BALL, 14 lb. conventional drill & bag, used one season, ball \$10; bag, \$12, both for \$20. White, 296-3842 after 5:30.
- 2 CHAIRS & drop-leaf table, maple, \$25; early American wing back chair, turquoise color, \$20. Siska, 298-5756.
- '68 YAMAHA motorcycle, 100 cc, \$325. Duvall, 299-8744.
- 8" STEEL LATHE w/assembly \$300, power hack saw, \$200. Jones, 247-9158.
- PENTAX H12, f/2 black body clip on meter, \$85; Canonet 8mm movie. Mason, 296-5344.
- BUTANE TANK, 250-gal., complete w/gage & fittings, \$150. Foster, 282-3112.
- SUZUKI Trail Bike 120, 3000 miles. McKelvey, 865-9280 Los Lunas.
- TOY POODLES, silver & white, AKC reg., 8 wks. old. Shipley, 298-2433.
- MINIATURE SCHNAUZER puppies, fine pets, loveable, easily trained, no doggy odor or shedding, ready for Christmas giving. McKinley, 296-7015.

- BOX TRAILER, 6x10 heavy duty tires. Rakoczy, 256-0433 after 6.
- 36", 4-string guitar, \$15; 36", 6-string Hawaiian guitar, bar & pick included, \$15. Frye, 255-8364.
- '67 MONTESSA, 250cc scrambler, \$475. Cobb, 296-3934.
- 9' GARAGE door & hardware, complete, \$15. Landavaso, 256-9638 after 5.
- ROOM HEATER, butane; cook stove, butane or natural gas; 2 baby beds; 2 small water pumps. Gallagher, 1-636-2742.
- STOVE, Frigidaire, 36" wide, electric, \$50. Uhler, 299-8271.
- CRUISE at 190 TAS, four place 1960 Bellanca 260, full panel, 3 radios, 1/4 interest for \$2700. Mechlenburg, 344-6793.
- BEAGLE PUPS, 6 wks. old, champion sire, \$35; Martin, 282-3794 after 6.
- GRUEN WATCH, man's gold w/new Spiedel band, \$22; Spiedel twist-a-flex watch band, new, gold, \$6. McIntire, 298-6145.
- BC348 Military communications rcvr w/AC power supply, \$45; '49 Harley Davidson 74 less engine & trans., \$45. Ernst, 344-8694.
- UPRIGHT PIANO, working condition, original finish, \$100. Davis, 345-1143.
- '67 Suzuki 50cc motorcycle, \$150. Rufsvoid, 268-5970.
- STEEL dbl. garage door w/hardware, \$60. Patterson, 877-3158.
- 30-06 ammo, 7c each; 2 Boy Scout uniforms; target bow, \$8; men's ice skates, \$8. Brammer, 265-8194.
- POODLES, champagne beige color, miniature, 3 females, 1 male. Pass, 299-0474.
- CAMPING TRAILER, Sears, sleeps 4, \$175. Hoice, 299-3365.
- GARAGE SALE: crib & mattress, \$18; high chair, \$6; Eldon car set, \$6; play furniture & misc., 1505 Marron Cir. NE. Driver.
- 21" ZENITH console TV. Mattina, 1808 Blume NE, 299-7060 evenings.

- HEATHKIT AM-FM tuners pre-amp turntable amplifier in cabinet w/kit books, \$25; Columbia record player w/stand, \$10. Mahaffey, 265-0798.
- BABY CRIB, Cosco net type, w/Kantwet mattress, \$12.50. Moore, 299-3758.
- RCA CONSOLE, AM/FM radio. Savitt, 268-0158.
- '64 TRIUMPH motorcycle, 650cc, TR6-SS, \$500. Tallman, 256-0597 after 5.
- GONSET 903A, two meter linear amplifier, 500 watts S.S.B., F.M., A.M., C.W., best offer. Richardson, 268-7843.
- RUGER single six convertible .22 and .22 magnum cylinders, \$55; new Remington nylon 66 .22 semi-auto., \$35. Reed, 299-1684.
- DOUBLE BEDS, maple & walnut; stuffed chairs; guitar & amplifier; other misc. furniture. Chandler, 296-3323.
- SURVEYING TRANSIT without tripod, \$125; Motorcycle, BSA 441 Shooting Star, \$800. Chacon, 4301 Hilton NE.
- 6-PANE 36x38" steel casement window, already glazed, \$10; neck brace for whiplash injury, \$12; naugahyde recliner chair, \$15. Nelson, 255-2364.
- USED Stenograph (Stenotype) machine, paper included, \$70. James, 265-1486.
- ENCYCLOPEDIA, '65 edition with yearbooks, \$125. Hendrix, 299-8872.
- TELEVISION, 21", B&W, early American console, 2 yrs. old. Waldorf, 242-8303.
- ELECTRIC STOVE, \$30, electric refrigerator, \$30; or both for \$50. Corli, 255-1186.
- DONKEYS, 2 Jennies, gentle, \$50 for both. Folkins, 867-2825.
- GIRL'S 20" bicycle, 2 yrs. old, \$10. Ray, 2812 Dallas NE, 298-0408.
- JIG for Pelican class sailboat, \$10; small boat trailer, \$40; Delta jointer, \$40 or trade for wood lathe. Wakeland, 299-2519.
- TABLE SAW, 8" tilt arbor, 3/4 HP motor, ball bearing arbor saw mounted in stand, \$85. Parker, 299-0289.

- ZENITH portable stereo record player, 4 speakers, diamond cartridge, \$40. Kelsey, 256-3755.
- HAMS, 500w linear, Heath DX-20, & 40w/cw xmtrs w/power supply & xtals, Dumont scope & misc. equip. Cave, 299-5066.
- HO TRAIN SET, complete w/accessories on 4'x8' landscaped table, \$95; 3' dia. kitchen table w/4 swivel chairs, \$65. Meidal, 255-6690.
- CARS & TRUCKS**
- '67 BUICK Sportwagon, factory air, AM-FM radio, front disc brakes, PS, \$2645. Schmierer, 299-2352 after 6.
- '64 KARMAN GIA convert., take over payments only. Anaya, 299-6477 or 255-3612.
- '63 FORD 3/4-ton pickup, 6-cyl., 4-spd., lwb. Dunswoth, 877-9557.
- '64 RED BUICK Skylark, PS, PB, AC, white buckets, below Blue book. Faro, 299-1265 after 5.
- '54 PONTIAC station wagon, \$150. Gallo, 298-1089.
- '66 ENGLISH FORD Cortina GT, 30,000 miles, one owner, R&H, \$1225. Stark, 296-4971.
- '61 FORD, std. shift, \$250. Cervantes, 255-5670.
- '62 CHEVY station wagon, 4-dr., AT, PS, V8, 75,000 miles, \$550. Snowdon, 344-4637.
- '66 VOLKSWAGEN sedan, air, AM-FM, opening rear windows, tinted windshield, radial tires. Campbell, 268-8445.
- '65 JEEP WAGONEER, 4wd, original owner, many extras, \$1750. Appel, 299-3776.
- '68 MUSTANG, low mileage, stick shift, R&H. Ortiz, 255-7114.
- '65 FORD Galaxie 500, 30,000 miles, 390 V8 stick, Air, radio, \$1400. Smith, 296-1049.
- '63 MGB ROADSTER, R&H, wire wheels, \$950 or best offer. Kilmer, 5308 Mountain Rd. NE, 268-8402.
- '63 SUNBEAM Alpine convertible, new red paint, R&H, 4-spd. stick, disk brakes, wire wheels, 38,000 miles, \$750. Larsen, 265-0004.

REAL ESTATE

- 3/4 ACRE w/cabin, needs repairs, \$1300. Vetter, 255-3959.
- 2-BDR. & den, near Wyoming-Candelaria, terms to reliable buyer. Mozley, 299-4204.
- 3-BDR. HOME, 5 mins. from Base, beamed cpls., carpet, drapes, cfa, lawn front & rear, \$350 down, \$90/mo. Reid, 299-0751.
- \$11,500 TOTAL, 2-bdr. house, den, walled yard, landscaped, \$800 down plus closing, approx. \$93/mo. FHA, 1334 Marron Cir. NE. Stark, 299-5953.

FOR RENT

FURNISHED sleeping room w/full house privileges. Welch, 296-2352 after 5.

WANTED

- RIDER northwest area near Rio Grande & Indian School Rd. Johnson, 247-8634.
- JOIN car pool Carlisle & Indian School Rd. area. Wolfe, 268-6864.
- TABLE SAW or radial arm saw, 2" D.O.C. or more, with or without stand. Browning, 299-6384.
- HAND operated adding machine, will pay up to \$15. Parsont, 299-1621.
- SHOP or factory manual for '54 to '56 Oldsmobile, '61 GMC pickup, and/or '68 Ford sedan. Villella, 298-7955.
- TWIN canopy beds, prefer white, also sofa that converts to a bed, also 8mm film editor. Chandler, 296-3323.
- LEICA cameras & accessories. Stark, 298-6139.
- CLASSIC GUITAR. Magnuson, 296-3650.
- LOST AND FOUND**
- LOST—Sunglasses w/white frames & rhinestones, green & silver Sheaffers fountain pen, yellow quadrant pad w/notes, silver & turquoise cuff link. LOST AND FOUND, tel. 264-2757, Bldg. 610.
- FOUND—Western Boot Leather key case, gold dangling earring, white button-type clip-on earring. LOST AND FOUND, tel. 264-2757, Bldg. 610.

Rolamite Symposium Held

A two-day "Symposium on Rolamite," held at the Hilton Hotel Nov. 12-13, featured a number of technical papers by Sandians and a talk by President John A. Hornbeck. Some one hundred people from all over attended, including one participant from Norway.

At the symposium, the latest development of the rolamite device and its possible applications were described for representatives of industry. Rolamite is a device of fundamentally new concept that was invented at Sandia Laboratories and released to the public approximately a year ago. Since then, it has been intensively developed for applications in frictionless bearings, operation in extreme environments, and storage of energy, and for amplification, damping and switching functions.

The first day of the symposium summarized operating principles, design criteria and basic applications. The second day featured workshop sessions where small groups of participants discussed application ideas with experts in the new technology.

John Ford, supervisor of Switches, Relays and Rolamites Division 2321, presented "Introduction to the Rolamite Mechanical Design Concept."

Former Sandian D. F. Wilkes, rolamite inventor, discussed "Accomplishing Useful Device Functions with Rolamite."

"Rolamite Geometry and Force Analysis"

was presented by R. V. Cadman of Advanced Development Division 2322.

C. M. Percival of Shock Wave Physics Research Division 5133, discussed "A Technical and Experimental Investigation of the Dynamic Response of Rolamite."

Other technical papers were presented by M. S. Walmer, manager of Precision Metals Research for Hamilton Watch Company and by L. E. Bell, president of Technar, Inc.

President Hornbeck was speaker at a reception and banquet Tuesday evening, Nov. 12.

The symposium was co-sponsored by the Technology Application Center of the Institute for Social Research and Development, University of New Mexico, and Sandia's Office of Industrial Cooperation.

Events Calendar

- Nov. 15—Holiday Idea Show, Civic Auditorium.
- Nov. 16-17—Sandia Peak Ski Patrol Ski Swap, Flower Bldg., State Fair Grounds.
- Nov. 17—Football, UNM vs. New Mexico State, 1:30 p.m.; Nov. 23, UNM vs. BYU, 1:30 p.m.
- Nov. 18—Truman Capote, UNM Lecture Series, Popejoy Hall.
- Nov. 22-23—"Star Spangled Girl," UNM Popejoy Hall.
- Nov. 23—The Nancy Ames Show, UNM Arena.
- Nov. 23—Shalako ceremony at Zuni Pueblo. YWCA charter bus.
- Nov. 29-30—Robert Joffrey Ballet Company, UNM Popejoy Hall.

Holidays Change LAB NEWS Schedule

Because of the Thanksgiving and Christmas Holidays, the LAB NEWS will be published on a slightly modified schedule in November and December. LAB NEWS will not be published on the regularly scheduled date of Nov. 29, when many Sandia employees will be on Thanksgiving vacation leave, but will be published instead on Dec. 6 and again on Dec. 20. Thereafter, LAB NEWS will be published at the customary two-week intervals.

Those who plan to use the classified section during the next few weeks should take note of the modified publication schedule. The deadline for classified ads is 12 noon on the Friday one week before publication.

Sandia Safety Signals

Some guys will stop at nothing.

Including stop signs. So, expect the unexpected. Whenever . . . wherever you drive, drive defensively. Stop signs are a good place to start.

Watch out for the other guy.

Know Your Highways

The numbering system on the Interstate Highway System helps orient motorists:

North-south routes end in odd numbers. Route numbers are low on the west coast and get higher as one travels east.

East-west routes end in even numbers. Route numbers are low along the southern border and get higher as one travels north.

Two-digit route numbers indicate through routes. A three-digit route number whose first digit is even indicates a loop route through or around a city. When the first of the three digits is odd, the highway is a spur route that connects a through route with a city.

Promotions

J. R. Doyle (3351) to Staff Member
 M. P. Apodaca (5432) to Staff Assistant Technical
 J. L. Sanchez (3434) to Staff Assistant Administrative
 E. F. Borkowski (4363) to Staff Assistant Administrative
 F. M. Thatcher (4575) to Laborer
 S. Jaramillo (4614) to Utility Operator
 M. C. Martinez (4232) to Molder
 G. L. Heston (4254) to Apprentice Machinist
 H. O. Armijo (8245) to Utility Operator
 K. R. Ludwick (3415) to Mail Clerk
 J. E. Perea (3415) to Mail Clerk
 E. A. Robinson (3126) to Stenographer Clerk
 R. Montoya (3415) to Mail Clerk
 I. T. Caldwell (3126) to Secretarial Stenographer
 J. A. Ryan (3126) to Secretarial Stenographer
 G. S. Kelly (3126) to Secretarial Typist
 D. M. Yoder (3126) to Secretarial Typist
 P. I. Cherry (4623) to Record Clerk
 D. A. Downs (7631) to Service Clerk
 L. A. Morrow, Jr. (9411) to Data Processing Clerk
 B. J. Morrow (7331) to Data Reduction Clerk
 J. F. Robinson (4331) to Purchase Service Clerk
 M. A. Rozzelle (9411) to Computer Facility Operator
 E. L. Sweazy (8171) to Secretarial Stenographer
 P. J. Harmon (8236) to Secretarial Stenographer
 H. L. Sitton (8182) to Secretarial Typist
 F. M. Rupley (8183) to Secretarial Typist
 B. A. Dietrich (8311) to Secretarial Typist
 J. G. Brazil, Jr. (8322) to Data Processing Clerk
 S. O. Knight (3254) to Secretarial Stenographer
 P. G. Carli (3251) to Employment Clerk

Welcome . . .

Newcomers

Oct. 28 - Nov. 8

Albuquerque	
Margaret T. Abeyta	4234
Shirley A. Alexander	3251
Evelyn C. Baca	3251
*Mary Ann Bishop	3126
Jay B. Newquist	3415
Marilyn Pendleton	3421
Robert J. Zamora	4574
Louisiana	
Robert W. Carter, New Llano	4136
New Jersey	
Clifford W. Mendel, Jr., Morristown	5235
New York	
*Clinton D. Tuthill, Lake Katrine	4221
* Rehired	

'Operation Stork' to Help Needy

Jubilee Chapter 511 of B'nai B'rith is sponsoring an "Operation Stork" drive to provide layette gifts to needy, expectant mothers. The drive, part of the national "March of Dimes" program, encourages expectant mothers—who because of impoverished circumstances normally would not seek pre-natal medical care—to visit a clinic.

Collection baskets labeled "Operation Stork" will be placed in major Sandia Laboratories buildings. Among used or new items needed for the layettes are diapers, blankets, crib sheets and infant clothing. Clothing for pre-school children will also be collected for distribution to needy mothers.

Wives of two Sandia employees are among those active in "Operation Stork," which will be underway from November through May. They are Mrs. George W.



HUSH YOU MUSKIES—or mush you huskies—to the Winter Sports Night at the Coronado Club, Nov. 23, says Hedy Kurowski (4333). Kiondike-type on left is a Winter Sport you can't hardly find any of anymore . . .

Coronado Club Activities

Winter Sports Night Set Nov. 23

Winter Sports Night dominates the remaining November calendar at the Coronado Club. This informal affair on Saturday, Nov. 23, will feature displays of ski equipment (including Skimobiles) by local merchants and information booths manned by members of the Coronado Ski Club, Hockey League and Desert Blades figure skating groups. The Ski Club will present a fashion show. Tommy Kelly and the Smiling Irishmen will play for dancing from 8 until 12 p.m.

A generous spread of cheese fondue and keg wine will take care of the refreshments.

Admission is one dollar.

Teenage Go-Go

The kids will do their thing tomorrow night from 7:30 until 10:30 p.m. The Circuits will be plugged into the bandstand. Member parents should pick up tickets today for the bash.

Football Bus

Buses will leave the Club tomorrow afternoon at 1 for the game between the Lobos and New Mexico State. Next Saturday afternoon, Nov. 23, the Lobos will face Brigham Young. After the games, the bus returns to the Club where social hour prices prevail in the main lounge,

Social Hours

Seafood, the best in Albuquerque, will be the buffet feature at social hour tonight. The Aristocats will play for dancing. The buffet costs \$1.25 for members, \$1 for kids.

On Friday, Nov. 22, the Club's famous chuckwagon roast beef will be wheeled out for the buffet spread while Phil Graham and orchestra occupy the bandstand.

Pat Reich and piano will entertain with a sing-a-long in the main lounge on both Friday social hours.

Beginning Friday, Nov. 29, the Club's schedule shifts to accommodate organizational parties, and social hour will be confined to the main lounge through December.

Organizational Christmas Parties

The holiday season starts at the Club on Friday, Nov. 29, with organization Christmas parties scheduled throughout the month. However, Jim Noonan, Club manager, reports that there are several choice dates still open at the Club. If your organization is planning a party, check with Jim about the Coronado Club party package.

Bridge

The duplicate bridge group will meet Monday, Nov. 18, for an open pair championship tournament and dinner starting at 7 p.m. For dinner reservations call 268-7605. Duplicate bridge will continue to meet at 7 p.m. Mondays through Dec. 2.

Ladies bridge will meet at 1 p.m. Thursday, Nov. 21 and at 1 p.m. on Thursday, Dec. 5.

Luncheon Special

Roast turkey with all the trimmings will be the luncheon special Thursday, Nov. 21, at the Club, Bldg. 839 cafeteria and Area III cafeteria. The cost for this traditional menu is only 99 cents.

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SANDIA LAB NEWS
 NOVEMBER 15, 1968

T-Bird Gets Life

Sandia's thunderbird emblem is seen in glowing color in last week's issue (Nov. 8) of LIFE magazine. The full page replica is the result of some experimental computer work by David Caskey (9424) and it appears in a photo article "The Luminous Art of the Computer."