

S. J. Buchsbaum
New Sandia V.P.



Solomon J. Buchsbaum was elected Vice President of Sandia Corporation effective July 1 at a special meeting of Sandia's Board of Directors in Kansas City last week. He will succeed Thomas B. Cook, Jr., as Vice President 5000. Mr. Cook will transfer to Livermore Laboratory June 1 as Vice President 8000.

Mr. Buchsbaum comes to Sandia from the Bell Telephone Laboratories at Holmdel, N.J., where he has been director of the Electronic Research Laboratory since May 1, 1965.

During his early years in the Bell System, he engaged in experimental and theoretical research in gaseous and solid state plasmas. He was appointed head of the Solid State and Plasma Physics Research Department in 1961.

He received the BS and MS degrees from McGill University in 1952 and 1953, respectively, and the PhD degree from the Massachusetts Institute of Technology in 1957. He remained at M.I.T., doing research work in microwave plasmas in magnetic fields until he joined Bell Laboratories in 1958.

He is a Fellow of the American Physical Society, and a member of Sigma Xi. He was a member of the executive committee, Division of Plasma Physics from 1962-64 and served as associate editor of THE PHYSICS OF FLUIDS from 1963-64. He is currently chairman of the Division of Plasma Physics, American Physical Society.

Mr. Buchsbaum is the author of a large number of published articles on plasma physics.

Bond Drive Dollars Increase; Participation Up to 85 Percent

With 345 employees joining the payroll savings program for U.S. Savings Bonds since the start of the Sandia drive May 1, the percentage of total participation now stands at 85.

These nearly final figures represent an increase of five percent over the start of the drive when 6504 employees were participating. At that time, Sandia employees were buying \$97,637 in Bonds each month. This has increased to \$116,416.

On May 1, some 2308 employees were buying a bond a month. This has increased by 615 employees to a total of 2923, an increase of more than 26 percent.

Employees who have not joined the payroll deduction program for U.S. Savings Bonds may still do so. From these figures, the program received an overwhelming majority vote of Sandia employees.

Construction Starts on New Welding Shops Addition to Bldg. 841

Work started this week on a 4200-square-foot addition to Bldg. 841. The construction project, which includes installation of a ventilation system and a 675-square-foot upper floor, will provide expanded area for Sandia's welding shops, part of Specialties Division B 4224 under Jim Kenagy.

Currently, the welding shops are housed in Bldgs. 841 and 845. After the new addition is completed, the facilities in Bldg. 845 will be moved to Bldg. 841 to consolidate work of the welding shops into one area.

The new addition will also provide superior facilities for the miniature welding and ultra clean work performed on the electron beam welders and other advanced equipment of the shops.

The construction project, which will cost \$136,000, should be completed about the middle of September.



SANDIA LAB NEWS

VOL. 20, NO.11, MAY 31, 1968

SANDIA LABORATORIES

ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA

OPERATED BY SANDIA CORPORATION FOR THE U. S. ATOMIC ENERGY COMMISSION

New Sandia Directors Appointed-- J. C. King Named 8300 at Livermore; A. Narath to 5100

Appointment of two new Directors has been announced, effective July 1. James C. King will become Director of newly-created Science and Technology 8300 at Livermore Laboratory and Albert Narath will become Director of Solid State Sciences Research 5100.

Mr. King was transferred to Sandia Laboratory in August 1965 to serve as manager of Radiation Physics Department 5210.

A Bell Telephone Laboratories employee for 15 years, he was head of the Ultrasonic Thin Film Device Department in Allentown, Pa., before his service with Sandia. His other BTL assignments have been in fundamental device development at the Murray Hill and Whippany, N.J., laboratories.

Mr. King was co-chairman of the Santa Fe Conference on Radiation Effects in Semiconductors, an international meeting held last fall.

His patents include one on Radiation Insensitive Quartz Crystal Devices which was issued since Mr. King has been with Sandia although based on work conducted at Whippany.

Mr. King received his BA degree in physics from Amherst College, and MS and PhD degrees in physics from Yale University.

Mr. Narath has been manager of a



James C. King 8300
Science and Technology



Albert Narath 5100
Solid State Sciences Research

department in the Physical Research organization for nearly four years. His organization was first called Physical Sciences Research Department and was later renamed Solid State Research Department 5150.

He has been at Sandia for nine years and was promoted to division supervisor in 1962. While with the laboratory, his

research projects have been in the field of magnetic interactions in solids.

Before coming here, Mr. Narath received his PhD degree in physical chemistry from the University of California at Berkeley. His BS in chemistry was conferred at the University of Cincinnati.

He is a member of the American Physical Society.

Gifts to Vietnamese Children

'Building the Heart of Understanding'

Last fall a local newspaper printed a request from an Albuquerque officer stationed with the First Marine Division in Vietnam for clothing and toys for children living in several villages 30 miles south of Da Nang.

Sandians in Technical Information Department 3410 and Public Relations Department 3430 were among Albuquerqueans who seemingly deluged Captain R. E. Porter with Christmas gifts for Vietnamese children and adults. Here are excerpts from his recent letter:

"Thank you for the gifts you sent to 'my children' here in Vietnam for their first American style Christmas. I only wish that you could have been here to see the happy faces, to hear the cries of joy and to receive the tearful thanks from the overwhelmed parents . . . The elders asked why we had given them so much when we didn't know them as personalities, only as Vietnamese.

"Through my interpreter, I explained to them that the gifts of toys, clothes and candy were from the people of New Mexico, which I compared to their provinces, and that a majority of them were from Albuquerque, which I compared to their villages . . . They couldn't understand why 'my people' would share their possessions with them, total strangers!

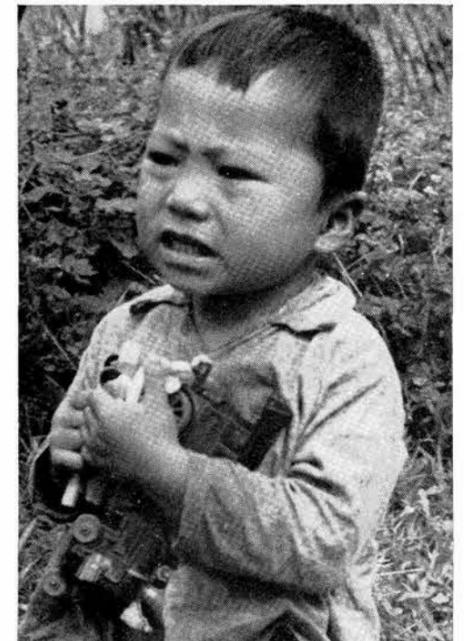
"I was rewarded for every gift with smiles and laughter, laughter that I seriously doubted I would ever hear from some of the elders. The children were the most impressive . . . their inexperience combined with a degree of fear and mistrust made them quite awkward but even more loveable.

"The village chief of HA NHA, one of the two villages, sent this message to me to convey to you and all of the people of New Mexico: 'Your affection is warm and has done much to build the heart of understanding. May you witness profit during the year of the Monkey.' (The Chief wished you a profitable New Year.)

"One of the greatest attractions for the



"The little five year old that I think is so pretty summed up her feelings, and I must say overwhelmed and surprised me, when she spoke her first English to me, saying: 'We con luv Tuu'."



"The children were the most impressive; they all tried to thank me in some way. Their inexperience combined with a degree of fear and mistrust made them quite awkward but even more lovable."

Vietnamese was the gift wrapping. Many of them saved their gifts and opened them as a family, each one taking his turn while the others watched and approved.

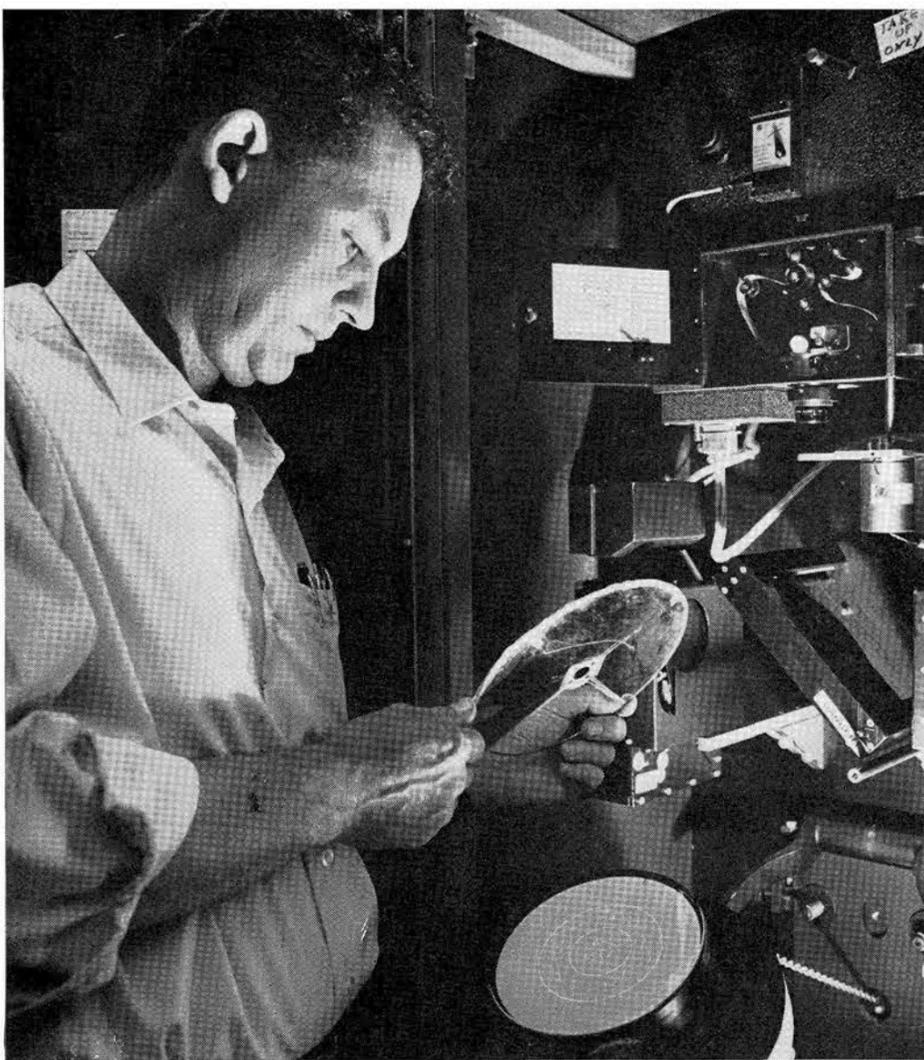
"Because of the terrific response I received there were gifts for everyone in both villages, including the adults. Most of the children got two large toys and three or four small ones.

"I received 853 boxes, each containing anywhere from 5 to 30 gifts. By Christmas Day I had 4320 toys, 3651 complete outfits of clothing (minus shoes), 1214 assorted pieces of clothing and over 200

pounds of candy. In order to transport the gifts to the villages, the Marine Corps provided the full cargo space of one helicopter and the services of the pilot.

"Again, thank you so very much for your thoughts and support and for the chance to represent you here in Vietnam on Christmas Day. The whole event made me proud to be an American and even more proud to be a New Mexican.

"Please extend my personal thanks to all the wonderful people at Sandia Corporation for their selfless gifts of time, talent and material for these poor unfortunates."



CLIFF FISK (9424) shows auxiliary computer equipment (part of the SC 4020) that exposes color film to make visual aids. Round cathode tube (bottom) produces image which is photographed through color wheel (in Cliff's hands) by camera mechanism at center top of cabinet. Cliff created general computer program which enables anyone to use the computer to produce drawings for slide presentations.

New Computer Program Can Make Colorful 35mm Slide Presentations

Any speaker who has faced an audience with a complex technical presentation knows the value of good visual aids. A slide presentation of charts, graphs and other visual data adds immeasurably to the clarity and information content of a talk.

Cliff Fisk, a programmer in Advanced Techniques Division 9424, has created a program for the IBM 7090 and Stromberg-Carlson 4020 combination that may be an ideal solution for some visual aid problems. With the computers, anyone can create colorful 35mm slides of the most complex chart or graph or produce simple listings of text or any combination in between.

Cliff, a member of the team which developed the ACCEL system for creating printed circuit layouts with a computer, is usually involved in more demanding projects. His new program is a by-product of preparing some illustrations he needed for a presentation at a computer group conference. After completing his illustrations with the computer he realized that with very little modification the program could be used as a general purpose program by anyone in the Laboratory.

He made the necessary changes and wrote a set of instructions. Programming Bulletin No. F-47, "General Plot Routines for Slide Preparation," will be issued next week. To obtain a copy, call 264-7179.

Cliff's instructions tell how to rough out an illustration using a standard grid with 1000 vertical and 1000 horizontal points representing the surface of the slide. From this rough, the program can be written easily, using Cliff's control code.

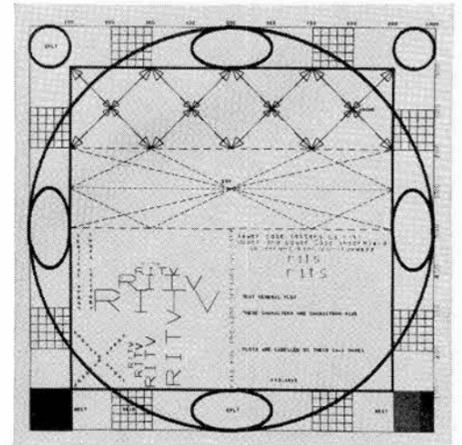
Subroutines within the program provide for geometric shapes, arrows, dotted lines, capital and lower case characters, three primary colors and any combination of colors.

His own slides prepared with the program are striking. Color is used for backgrounds, for emphasis and for information content; for example, several different colored data curves can be shown against a single grid.

The 7090 computer first plots the information contained in the program, and the SC 4020 then uses the output to expose the film with an electron beam and a cathode ray tube. A filter wheel between the cathode tube of the 4020 and the built-in camera provides the desired colors. Film is processed in the normal way after exposure by the computer.

There are a number of advantages in using the system, Cliff reports. In the first place, the person needing the slides has full control of the illustrative material—after all, he prepares the rough layout on the grid to meet his own specifications.

Second, the finished slide is a unique



COMPLEX DESIGN reproduced above shows versatility and capability of new computer program for making 35mm color slides, but gives no indication of all the multicolor effects possible. Original slide has brilliant reds, greens, blues, yellows, etc. The general computer program is available to anyone in the Laboratory for use in creating visual aids.

product. How many speakers use slides prepared by a computer? It is also a superior product able to display complex information in the colorful and easy-to-understand matter. The imagination of the programmer is the only limiting factor in making illustrations.

Third, the computer-produced slide can, in some cases, save considerable time when compared to the time an artist needs to prepare complex information charts. Photography time can also be reduced. Cliff estimates that one should be able to write a program for slides and have exposed film within two days. The film, however, would still require normal processing time.

The SC 4020 is an auxiliary computer used normally for high-speed production of plots. It was adapted to color film capabilities by Division 9424 personnel under the initiation and supervision of D. K. Robbins. Participating in the project were Leigh Hendricks, Cliff, and Claude Glass of Stromberg-Carlson.

Experimental work with the computer includes producing color motion pictures and other visual displays of information. A possible application of the work might be a movie which shows the progression of shock wave patterns—a precision, graphic illustration made by data recorded during an actual test.

"In the meantime," Cliff says, "we have a program which will produce graphic material for slide presentations. I'll be happy to show anyone how to use the program."

Attending HemisFair '67?

If you plan to attend the HemisFair at San Antonio this summer, you'll want to use the coupon below to avoid the lengthy lines waiting to enter the Bell System exhibit. Previews of this exhibit indicated it would be one of the highlights of HemisFair.

Present the coupon to the uniformed attendant at the front door for admission of yourself and your family to a special showing at 9:30 a.m. The first regular show is at 10 a.m.



HemisFair '68

Admit Bearer and family to special show at 9:30 a.m.

Employee of Sandia Laboratories



SANDIA LAB NEWS



SANDIA LABORATORIES
ALBUQUERQUE, NEW MEXICO
LIVERMORE, CALIFORNIA

Operated for the United States Atomic Energy Commission by Sandia Corporation

Editorial Offices, Albuquerque, New Mexico
Employee Publications, Rm. 112, Bldg. 800,
Tel: 264-1053
Editor: Thomas B. Heaphy

Staff: Cherry Lou Burns, Robert P. Gall,
Donald E. Graham, Bill Laskar,

Public Information, Livermore, California
Rm. 138, Bldg. 912, Tel: 447-2387

William A. Jamieson, supervisor
Staff: Matthew J. Connors, Lorena Schneider

Permission to reprint material herein for other than governmental use may be obtained from the Editor, Sandia Lab News.



Death

Edith A. Millage, a secretary-stenographer in Employee and Secretarial Services Division 3126, died May 22 after a long illness. She was 51.

She had worked at Sandia Laboratory since February 1962.

Survivors include her husband, a son and a daughter.



ADVANCED CONCEPT of a ribbon parachute is examined by Theodore W. Knacke (third from left), the inventor of the ribbon parachute, during a tour of Sandia's Parachute Laboratory. The tour was part of a technical meeting of the national Aerodynamic Deceleration Systems Technical Committee of the American Institute of Aeronautics and Astronautics meeting in Albuquerque recently. Discussing a 20-foot Sandia designed ribbon chute with Mr. Knacke, who is also chairman of the technical committee, is W. B. Pepper (9324), a member of the committee and Sandia host. At left is Ken French, Lockheed, Sunnyvale; and at right is Jim Reuter, Pioneer Parachute Co., Inc., Manchester, Conn.

B. W. Colston Named Asst. Mgr., Operations Sandia Area Office

Bill W. Colston has been promoted to assistant area manager for Operations at the Atomic Energy Commission's Sandia Area Office (SAO). He succeeds H. N. Meyer, Jr., who has been transferred to the Weapons Development Division at AEC's Albuquerque Operations Office.



SAO assignments include administering the Commission's contract with Sandia Corporation for work carried out in New Mexico, California and Nevada, and administering various space isotope power contracts with industrial firms.

Mr. Colston joined the AEC's Space Nuclear Systems Division in Washington, D.C., in 1966 and transferred to SAO as chief of the Space Projects Branch in April 1967. In 1960, he was employed at the Oak Ridge National Laboratory. From 1962-66, he was employed at Atomic International at Canoga Park, Calif.

A native of Oklahoma, Mr. Colston attended Oklahoma State University and the University of California in Los Angeles and received a BS degree in physics from the University of Oklahoma.

M. A. Pound Appointed Director, Livermore Park and Recreation Board



Marlin A. Pound has been appointed to the board of directors of the Livermore Area Recreation and Park District (LARPD) by the Alameda County Board of Supervisors. He fills an eight-month unexpired term created recently when a member resigned for health reasons.

Marlin has been active with the LARPD for the past four years, serving as chairman of the Personnel Commission. This commission works in an advisory capacity, dealing with employment policies, salaries, personnel rules and employee appeals. He

China's Authority Crisis Is Subject Of June Colloquium

Dr. Charles A. Johnson, chairman of the Center for Chinese Studies at the University of California, Berkeley, examines "The Authority Crisis in Communist China" at the Livermore Laboratory Colloquium Tuesday, June 11.

Receiving his PhD in 1961 from the University of California, Berkeley, Dr. Johnson studied in Japan for a year under a Ford Foundation Foreign Area Training Fellowship. He joined the staff at Berkeley as an assistant professor in 1962. In 1965 he returned to Japan and Hong Kong for research under a grant from the Social Science Research Council.

From 1963-65, Dr. Johnson served on the East Asia Teacher Training Committee. He was co-chairman for the Project on Comparative Study of Communist Societies and a member of the National Planning Committee for Comparative Communist Studies, American Council of Learned Societies, in 1967.

An active public lecturer, Dr. Johnson participated weekly in the KQED television program "World Press Review." His publications are extensive with articles appearing in the NEW YORK TIMES MAGAZINE, WORLD POLITICS and THE ASIA MAGAZINE. His most publicized book is AN INSTANCE OF TREASON, OZAKI HOTSUMI AND THE SORGE SPY RING.

Further information concerning the Colloquium will be posted on bulletin boards June 3. Tickets are required for admission. Ted Gold (5510) is host for the Colloquium.

has headed the commission since it was formed.

Presently, Marlin supervises Training, Benefits, and Records Division 8214 at Livermore Laboratory. He joined SCLL in 1957 as a personnel representative and has been assigned to such organizations as employment and personnel development, administrative systems, and compensation and salary administration. He was promoted to his present position in 1966.

Before coming to Sandia, Marlin served in the U. S. Marine Corps from 1955-57. Previously he attended the University of New Mexico where he received his Bachelor's degree in business administration in 1955.

Since coming to Livermore, Marlin has been active in various church activities, and is presently on the board of directors of the Student Education Loan Fund (SELF).

He is a member of the American Society for Training and Development, the Southern Alameda County Personnel Manager's Association, and the Diablo Region Industrial Personnel Society.

D. E. Gregson, manager of Preliminary Design Department 8130, serves as chairman of the LARPD board of directors.

Take Note

Al Alford, supervisor of Manufacturing and Shop Liaison Section 8223-5, was guest speaker at the May meeting of the Society for the Advancement of Management (SAM) in San Francisco. Title of his talk was "How the Public Gains from Government Research and Development," and including a showing of the film, "Sandia Spinoff."

Jack Dini (8141) shot a net low score of 65 to win the first place trophy in the Sandia Employee Golf Club tournament recently held at the Bethel Island Golf course.

The tourney was played on straight handicap basis with participants divided into two flights. Bill Chapin (8168) was the top winner of the first flight (handicap of 22 or less) with a net score of 67 and Carl Beckham (8151) won the second flight (handicap 23-36) with a net score of 66.

Tom Covert (8132) was closest to the pin in the hole-in-one contest.

Sympathy

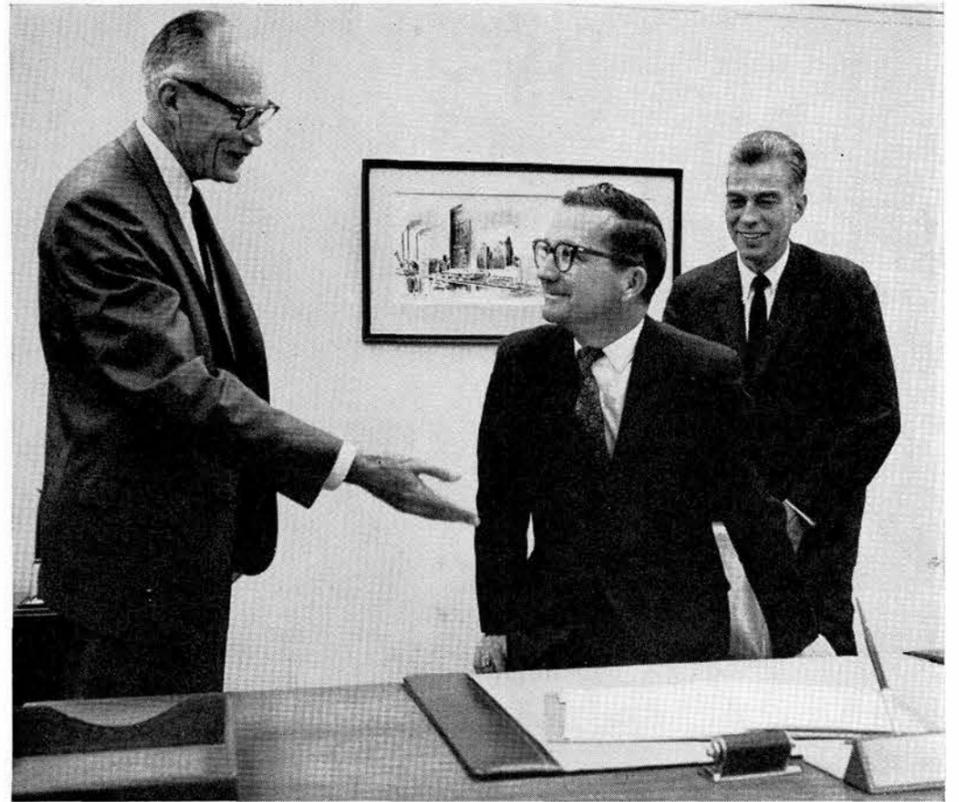
To Leo Adams (8245-4) for the death of his father in Robinson, Ill., May 7.

LIVERMORE NEWS

VOL. 20, NO. 11

SANDIA LAB NEWS

MAY 31, 1968



B. S. BIGGS, who is retiring as Vice President at Livermore Laboratory, offers his chair to his successor T. B. Cook, Jr., during a recent meeting in Livermore. President Hornbeck assists.

New Vice President at Livermore

T. B. Cook, Jr., Succeeds B. S. Biggs Who Retires from Bell System in June

B. S. Biggs (8000) retires June 30 after heading Livermore Laboratory for the past seven years, and after completing a total of 32 years of service with the Bell Telephone Laboratories.

He is being succeeded by Thomas B. Cook, Jr., Vice President 5000, who assumes his new position at Livermore June 1.

Mr. Biggs joined Sandia in Albuquerque in January 1958 as director of Materials and Standards Development. He was elected Vice President, Development, in September 1960 and appointed Vice President 8000 on June 1, 1961.

Throughout his career with the Bell System, Mr. Biggs was extensively involved in materials research and engineering, publishing a number of scientific papers in this field. His first five years were spent at the old Summit, N.J., Laboratory, which was the forerunner of Murray Hill. During these and subsequent years at Murray Hill, he was engaged in the synthesis of various materials, including organic dielectrics and polymers of the polyester and polyamide types.

During World War II he participated in research in synthetic rubber under a contract between Bell Laboratories and the U. S. Government Research Program.

In 1946 Mr. Biggs initiated a research program in oxidation of organic polymers which is still going on at the Bell Laboratories and which has contributed importantly to an understanding of aging processes in engineering materials. Patents on anti-oxidant systems growing out of this work are currently returning substantial annual revenues to the Bell System.

New Track Record

Marshall D. Meyer (8141) set a record at the Laguna Seca track near Monterey recently during one of the Northern California regional races.

Driving his 1966 Triumph Spitfire, Marshall completed the fastest recorded lap in Class G for production model vehicles—1:25.68 minutes. This was two seconds faster than the old record. Later, while leading the race, he spun out and finished in second place.

Last year Marshall took a third place trophy and first in his class for points standing for the season at the final regional race held at Laguna Seca.

In 1949 he was given the responsibility for materials engineering of all organic materials, and advanced to Assistant Chemical Director—Development of the Bell Laboratories, Murray Hill.

Mr. Biggs became a consultant to Sandia in rubber and plastics engineering in 1950 and made trips to Albuquerque periodically until his Sandia assignment in 1958.

Before joining the Bell System in 1936 he was a member of the staff of the Coal Research Laboratory, Carnegie Institute of Technology, for three years.

Following graduation from Southwest Texas State Teachers College in 1927, he coached football and taught chemistry and physics at Texas City High School for two years. Subsequently he received AM and PhD degrees in chemistry from the University of Texas.

Mr. and Mrs. Biggs plan to remain in California at their Golf Road residence in Pleasanton. However, their plans also include considerable travel.

Mr. Cook joined Sandia as a staff member in the research organization in 1951. He was promoted to section supervisor in 1955, division supervisor in 1956, and department manager in 1959. He was appointed Director of Physics and Mathematics Research in June 1962 and elected Vice President of Sandia Corporation on Nov. 1, 1967, succeeding R. C. Fletcher as Vice President 5000.

He received a BS degree in physics from Western Kentucky University in 1947 following service in the U.S. Navy in World War II. His MS and PhD degrees in physics were received from Vanderbilt University in 1949 and 1951 respectively.

A Fellow of the American Physical Society and a member of Sigma Xi honorary research society, Mr. Cook serves on the Air Force Scientific Advisory Board (SAB). He is currently chairman of a task force for the Defense Science Board for the Director of Defense Research and Engineering (DDRE) and a member of the Defense Atomic Support Agency's Scientific Advisory Group on Effects (SAGE). He has served on other DOD and AEC advisory groups and has been a consultant to several military industrial organizations.

His wife and daughter are accompanying him to Livermore. His son is attending Harvard University.



GIRLS' SOFTBALL TEAM. Practice sessions are underway at Livermore Laboratory for the girl softball team, organized recently to compete in exhibition games against the men's teams in the Sandia Slo Pitch League. To make the play more equitable, handicaps have been established in favor of the girls—the men must bat the opposite of their normal batting habit; the girls are allowed five outs per inning, the men only two; and the men are limited to a maximum of four runs in any inning. Members of the team are (top row, from left) Nancy McCorkle (8119), Tolly Vincent (8124), Mary Lee (8242), Barbara Piper (8233), Ann Erickson (8132), Jan Wikkerink (8242), and Glenda Day (8242); (bottom row) Deanna Wilson (wife of Dennis Wilson, 8125), Joan Tucker (8127), Patsy Campbell (wife of Alan Campbell, 8127), Bonnie Skenandore (wife of Larry Skenandore, 7125), and Mona Krehwisch (8242). Absent were Barbara Combs (8113), Judy Reid (8242), and Dee Wackerly (wife of Carl Wackerly, 8213). Don Werner (8113) and Tabo Hisaoka (8252) serve as coach and assistant coach, respectively.



TROPHIES won during one year of rally competition are displayed by Ron Ewing (5235), left, and Earl Gruer (4542). The large trophies are traveling awards presented each year by the Albuquerque Sports Car Club to the best navigator and the best driver. Other silver platters, bowls, and tankards are national and divisional rally displays.

Rally 'Round the Trophies, Boys -- Local Team Ranks High Nationally

At the present time Ron Ewing (5235) and Earl Gruer (4542) are tied with another team in leading the nation in sports car rally competition, which is pretty fabulous when you consider the tough competition.

The team of Sandians pulled into the top spot nationally in late April when, as defending champions, they again won the Great Canyon rally which originates in Tucson, Ariz. The previous month they placed second or third (the results are not yet official) in the Rustler's Run competition in Dallas.

Last year the Ewing-Gruer combination placed fourth nationally, and they were champions of the midwest division of the Sports Car Club of America. This was the result of competing in three national and four divisional rallies. They won first or second honors in all except one of these.

There is considerable difference between a sports car race and a rally. In a rally, instructions for the day's run are given to the teams 15 minutes before starting time. The cars must follow the pre-determined course which takes them over a variety of road surfaces and terrain. There are frequent checkpoints and the team is penalized for the number of seconds early or late in passing each of these points. The rallying speed will change every few miles, but at no time is it ever over the posted speed limit.

Earl and Ron began rallying as a team three years ago. Earl is the driver and Ron the navigator—in serious competition they don't change roles. They've rallied in Ron's Avanti and Earl's TR-2, but for the past year they've mainly used Earl's 1957 Porsche Super Speedster. The SCCA-sanctioned rallies are divided into Class A or open, which allows unlimited use of equipment, and Class B or limited, which allows standard equipment only. The Sandians compete in the latter.

Ron uses a large circular slide rule which can be set to compensate for differences between the official mile and the car's odometer reading, an accurate watch, and a WWV radio to pick up National Bureau of Standards time signals.

At the recent Great Canyon rally, the roads were so bad that the average speed

was under 40 mph and the speedometer readings ranged from 8 to 70 mph.

This rally started at Tucson at 7 a.m. on a Saturday and the first leg ended at 6 p.m. at Silver City, N.M. "It was a difficult course and we drove on many dirt roads. We really had no idea where we were," they explained. The second leg was run on Sunday back to Tucson. There were 15 checkpoints each day and the Gruer-Ewing team had an average error of under 2/10ths of a minute—"the worst we have done and still won," they said.

Ron and Earl consider the Las Cruces rallies the most difficult in the nation. As they put it, "The sports car enthusiasts down there are experienced in putting on exciting and challenging rallies. The route criss-crosses among the cotton fields and there will be cars going in all directions—each driver thinking he's on the right road." After a dozen cars have whipped by, an occasional farmer will try to flag down a driver to find out what's going on, but no one will stop to tell him.

Ron and Earl had a sad experience of this type during a running of the Continental Divide Rally in Colorado. They pulled over to the shoulder of a one-lane road to let a non-rally car pass. The driver of the car moved ahead, blocked the road, and wouldn't let the ralliers pass until they explained what they were doing. The delay was enough to cost the Sandians the rally.

What are the main requirements for rally enthusiasts? A very responsive car (so that a steady speed can be maintained without slowing down for corners)—and an understanding wife.

Events Calendar

- May 31 - June 1—NAIA track championships, University Stadium.
- June 2—Hermit Peak (Pecos Wilderness Area near Las Vegas). N.M. Mountain Club, leader Norm Bullard, tel. 268-1812.
- Thru June 11—Salvador Dali "Art-in-Jewels" exhibits (to benefit St. Joseph Hospital building fund), Coronado Center Town Hall.

Great Books Discussion Program Expanding Activities in Local Area

Great Books Discussion program has recently expanded its activities to offer more adults and school-age children the opportunity to increase their knowledge by reading and discussing the "great books."

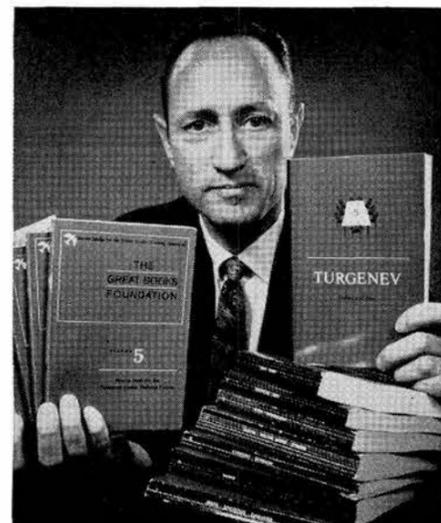
This year several more adult discussion groups will be formed in addition to the four existing groups; a Junior Great Books program designed especially for elementary and secondary school students will be initiated and a leader training course will be offered to interested adults.

"The adult discussion program has been operating in Albuquerque for 10 years," David T. Judd (7331) says. "The Great Books program is built on the concepts that meaningful liberal education is a life-long effort, and that some great books provide the best basis for a liberal education. In addition, people who respect the power to reason can help one another to learn from the great books."

Dave is an active participant in an adult discussion group that meets once every two weeks and is one of the Sandians who have completed the Great Books Leader Training Course. Others are R. P. Pardee (1133), C. H. Williams (1125), Joy DeVolk (3126) and F. F. Taylor (3464).

The new junior program is presently being organized in the Albuquerque Public Schools. It is designed to develop the ability of youngsters, grades 3-12, to think reflectively and critically by reading and discussing great books.

Because co-leaders are urgently needed to conduct the junior and adult discussion groups this fall, the second leader training course will be offered to interested adults this summer. The once-a-week sessions are two hours each for eight weeks. During the course conducted by a staff member of the Great Books Foundation, the trainees learn the art of questioning and



VOLUMES OF GREAT BOOKS discussed during group meetings last year (right) are displayed by Dave Judd (7331) along with the source books used in the leader-training course. Eight volumes, consisting of 16 readings from great books, cost \$12.

the various techniques to initiate, sustain and conclude a successful discussion on any topic. The course is tuition-free in exchange for a personal commitment to co-lead a discussion group. The only charge is eight dollars for the source books. A certificate of achievement is awarded to those who complete the course.

Sandia personnel interested in participating in a Great Books Discussion Group or in enrolling in the Leader Training Course may contact Dave or the Great Books Foundation area coordinator, Mel Bernstein, tel. 299-0286.

Sandia Photographers' Leisure Time Efforts Bring Recognition

Off-hour activities of three Sandia photographers continue to bring them recognition in their efforts to move photography into the area of fine art.

The work of Tom Zudick, supervisor of Still Photographic Services Section 3465-1, and Wayne Gravning of Motion Picture Production Division 3464 is reproduced in the April 1968 issue of THE PROFESSIONAL PHOTOGRAPHER to illustrate an article about photographic displays at Quivira Gallery in Corrales.

Currently, an exhibit of photographs of Yosemite National Park by Oscar Goodwin (3465-1) is on display at Quivira.

One of Wayne's photographs recently received a purchase award by the City of Albuquerque. Part of a continuing effort, the purchase awards program was established to buy art for decorating the Municipal Building.

Tom's exhibit of photographs, "Artists of New Mexico," after closing recently at UNM's Jonson Gallery, will be shown at the First Unitarian Church through June and at the Stables Gallery in Taos next fall.

Retiring



Robert Creveling of Electronic Development Division 1422 will retire May 31 with more than 17 years at Sandia. He joined the Laboratory in July 1950 in the weapons effects testing organization. From 1951-65 he was

with the nuclear devices department. Since 1965, he has had various assignments in Electronic Systems Department 1420.

During his years at Sandia, Bob has been granted six patents (three were assigned to the AEC) on electronic components. Retirement plans include some follow-up work on his inventions.

Mr. and Mrs. Creveling's two daughters and their families—six grandchildren—live in New Mexico. Bob plans to play golf and travel. "We intend to see New Mexico first," he says, "then perhaps Canada and Old Mexico and eventually Europe."

Bob is taking early retirement—"It seems like a good idea to take advantage of the company's plan for early retirement."

Gloria Reid (3126/9320)

Take a Memo, Please

Spring gardening brings with it additional hazards: power mowers, poisonous chemicals, rusty tools. Be alert indoors and outdoors.

Take Note

Engineer T. J. Williams, Jr. (1431) was elected first vice president of the New Mexico Elks Lodge organization during the annual spring convention in Roswell in mid-May. He will serve in this capacity for a year, then become state president.

The organization represents the 18 Elks lodges in the state.

T. J. was exalted ruler of B.P.O. Elks 461 in Albuquerque in 1964 and has served on the board of trustees of this lodge ever since. He is presently chairman of the board. When the Albuquerque lodge recently increased its membership limit to 5000, it became the fifth largest Elks lodge in the nation.

The Sandian also served in 1967 as district deputy, a national office.

Josephine Hanna (4000) and Winifred Sandusky (6000) will represent Sandia at the Certified Professional Secretary Seminar entitled "The Secretary in the Management Process," to be held June 9-13 at Estes Park, Colo.

J. K. Merillat, supervisor of Employment Division 3251, has been appointed chairman of the College Placement Council salary survey committee.

Since 1959 the council has conducted a yearly study of beginning salary offers. Data for the study are collected from 116 selected colleges and universities across the country.

The 12-member committee is made up of representatives of both industry and universities.

Sympathy

To B. K. Seely (1121) for the death of his son, David, May 22.

Concert Set June 5

The Enchanters Are Serious Musicians Who Sing for Fun

A group of singing Sandians—members of The Enchanters—pursues a leisure-time activity with professional zeal. They sing for fun, but have built a solid reputation as serious musicians.

The 20-voice group will present a public concert Wednesday, June 5, on the mall at Coronado Center from 7 to 8 p.m. This performance, like most of their concerts, will feature a selection of popular numbers, Broadway songs, and novelties. They sing in the old Fred Waring style—smooth and, on occasion, swinging.

Clint Purdue (2442), director of the group for the past two years, scores some of the arrangements himself. At one time, Clint majored in music education but World War II interrupted that and he became an engineer instead. Like others in the group, Clint maintains a major interest in music.

Most of the members of The Enchanters have been singing together for about eight years. The original group, the Bel Canto Singers, received wide recognition for a couple of record albums recorded about three years ago—"Something Different" and "The World Sings at Christmas." Clint, C. E. Abraham (5264) and Don Rost (3351) were soloists in some of the songs in these albums.

The Enchanters rehearse once a week and perform at various conventions and banquets throughout the year. They also give their share of benefits at local hospitals. A non-profit organization, the fees collected for some performances buy arrangements and pay for the rental hall at Zia School.

"Love of music is what keeps the group together," Clint says. "And we have tremendous pride in the organization. We work extremely hard to maintain the highest musical standards. Then, too, there's a tremendous satisfaction in per-



JAMES JACOBS to supervisor of Advanced Development Division 9333, effective May 16.

Jim has been with Sandia since 1959 and was originally assigned to project groups in the weapons field. In 1964 he was one of several Sandians given a leave of absence to help Bellcomm Inc., with the task of reviewing and studying Project Apollo problems presented by the National Aeronautics and Space Administration. His particular effort was in the field of trajectory analysis in celestial mechanics.

In July 1966 Jim returned to Sandia for assignment in Aerospace Nuclear Safety Department 9310 and later Space Isotope Power Department 9330.

He has a BS in mechanical engineering from the University of Nebraska and a MS in ME from the University of New Mexico (completed under Sandia's Educational Aids Program). While with Bellcomm in Washington, D.C., he took additional graduate courses at George Washington University.

He is a member of AIAA, and Sigma Tau, Pi Tau Sigma, and Pi Mu Epsilon honorary societies.

Congratulations

Mr. and Mrs. George Shelton (9326), a daughter, Dana Kathleen, May 19.

Mr. and Mrs. W. Van Horn (2542), a son, David Luis, May 16.

Mr. and Mrs. A. T. Faro (1131), a son, John David, May 22.

Supervisory Appointments



JAMES A. KENAGY to manager of Control Department 4210, effective June 1.

Jim has been with Sandia since 1952 and has worked in wage and salary administration, manufacturing relations engineering, and assisted in establishment of the supplier relations function in Purchasing organization. He has been supervisor of Specialties Division B, 4224 for 10 years.

Previously he served six and a half years in the Navy, most of the time on board ship as an engineering officer.

He has BS and MA degrees in industrial arts from the University of Wyoming.

Jim is a member of the American Institute of Industrial Engineers and the American Society for Metals.



JAMES E. SCHIRBER to manager of Solid State Research Department 5150, effective July 1.

Jim has been at Sandia since 1962 and has headed Electronic Properties of Solids Division 5151 since August 1964.

Before he joined Sandia, he spent a year in England on a fellowship at the University of Bristol doing Fermi surface studies. He has also done a year of post-doctoral research at Iowa State University.

Jim has a BA degree in physics and mathematics from St. John's University in Minnesota, and a PhD degree in physics from Iowa State University. He is a member of Sigma Xi honorary society and the American Physical Society.

Three Sandians to Conduct Firearms Safety Course

A firearms safety course will be conducted later this month for residents living within driving distance of the Bernalillo County Volunteer Fire District No. 6 Station on north State Highway 10.

Sponsored by the volunteer fire group, the course will be conducted under the auspices of the New Mexico Game and Fish Department. It will consist of 10 hours of class time, two hours one night a week for five weeks, and a Saturday session of firing on the range.

G. Q. Wilson (7332), F. G. King (7311) and P. L. Walter (7336) will be the instructors.

Sandians interested in enrolling themselves, their children or spouses may contact Gerald Wilson, tel. 282-3225. Dates for the sessions will be arranged after the group is formed.



GARTH W. GOBEL to manager of Radiation Effects in Solids Research Department 5110, effective July 1.

Garth was transferred from Bell Telephone Laboratories to Sandia Laboratory two years ago to head the newly-created Transient Effects in Devices Division 5214 in Radiation Physics Department.

Previously, he was on loan to Sandia during the summer of 1964 to carry out research in Crystal Lattice Defects Division 5211.

He has a BS degree from Rice University, an MS from the University of Illinois, and a PhD degree from Purdue University, all in physics. Mr. Gobel is a fellow of the American Physical Society.

Speakers

George Banos (3233), "A Scientific Laboratory's Role in Equal Employment Opportunity," UNM Graduate School Seminar, April 27.

G. R. Norris, Jr. (7214), "Theory and Practice of Measuring Mass Properties," International Conference of the Society of Aeronautical Weight Engineers, May 15, New Orleans.

R. L. Park (5123), "Annealing Effects on Single-Crystal Surfaces," American Institute of Chemical Engineers meeting, May 19-22, Tampa, Fla.

R. G. Luckey (4100), "Educational Needs for the Expanding Scope of the Accounting Profession," Jackson, Miss., chapter of the National Association of Accountants, May 16.

M. M. Sluyter (9321), "The Hall Effect in the Magnetogasdynamic Boundary Layer on Rotating Bodies," University of Pennsylvania Graduate Colloquium, May 1, Philadelphia.

E. D. Jones (5151), "Nuclear Magnetic Resonance Measurements in Electronic Singlet Ground State Systems," Northwestern University Physics Department Seminar, April 9, Evanston, Ill.

L. V. Rigby (2152) and D. A. Edelman (2153), "An Analysis of Human Variability in Mechanical Inspection," American Ordnance Association, May 22, Redstone Arsenal, Ala.

R. D. Driver (5262), "A Visit to the Soviet Union," Society of Nondestructive Testing, May 2, Albuquerque.

Joseph Danclovic (3131), "Organization Theory," Heights Lions Club, May 2.

C. S. Johnson (7252), "Where Has 'Justice' Gone?" Sunport Optimist Club, May 15; "The Amazing Mystery of the UFO," First Presbyterian Church, May 19; "The Scientific Quest of ESP," Rio Grande Kiwanis Club, May 23.

J. W. Reed (7111), "Interoceanic Canal Feasibility Studies," Heights Lions Club, May 23.

R. J. Everett (9315), "Studies in Radiation Risk Criteria for SNAP Systems," American Industrial Hygiene meeting, May 13-17, St. Louis.

H. H. Wicke (5321), "On Topological Completeness of First-Countable Hausdorff Spaces," University of New Mexico Mathematics Colloquium, May 9.

W. C. Lyons (5520), "Elastic and Plastic Buckling of Cylindrical Shells Subjected to Impulsive Loads," Symposium on Buckling of Structures, May 3, Colorado Springs.

D. W. Ballard (2564), "Manufacturing Research at Sandia Laboratories," Charlotte and Winston-Salem sections of ASTME, June 10-11, Winston-Salem, N.C.

R. H. Croll, Jr. (9322), "A Wind Tunnel Data Acquisition and Control System," and J. F. Reed (9322), "A Semiconductor Strain Gage Balance for Use in Conventional Wind Tunnels," 14th National ISA Aerospace Instrumentation Symposium, June 3-5, Boston.

W. Dale Jones (2566), "Defect Prevention through an Applied Manufacturing Engineering Procedure," ASTME Quality Planning Seminar, May 23, Hartford, Conn.



SINGING SANDIANS, members of The Enchanters, rehearse for a concert June 5. Pianist is Mrs. G. H. Bradley, Jr. Director Clint Purdue is at left and others are (l to r) G. C. Shelton, Mrs. Janet Suchland, Mrs. B. H. Finley, D. L. Rost, Mrs. M. P. Johnson, Mrs. G. C. Wayland, C. E. Abraham, and F. F. Taylor.

Power Outage Season Continues; Modifications, Maintenance Needed

Along with tax deadlines and football games, you can almost count on electrical power outages at Sandia Laboratory in the spring and fall. And this spring is no exception.

Through most of June weekend power outages will be necessary to maintain and modify the primary electrical system.

Sandia Base, including the Laboratory, is the largest power user in New Mexico

(about one-fourth of the total load). Sandia Laboratory has four 3750 kva (kilovolt ampere) substations in Area I plus a 10,000 kva substation under construction; and in Area III, two 2500 kva substations, a special 5000 kva facility for the plasma jet and a 1500 kva facility for the centrifuge. Another 2500 kva substation is at the proposal stage.

D. D. Knott, supervisor of Building and

Facilities Design Division I 4542, explains that as new buildings and instrumentation are added, his office tries to predict future power demands. "This new substation was needed sooner than has been the case in the past and we estimate that 81 percent of the total capacity of all five substations will be reached early in 1971." Cliff K. Rudy of Division 4542 has spent a month replanning and rebalancing existing loads to ensure best use of the new substation and best reliability of the distribution system. "In shifting the load from one substation to another, we try our best to complete the operation with a minimum of 'down' time," he says.

The original underground system was installed in 1950 and is still in service without apparent deterioration. "With a car you can roughly predict when various parts will wear out," Mr. Knott says. "But cables aren't like cars; you can't predict when they will wear out."

That is why whenever an outage is necessary to modify a line, preventive maintenance is also carried out. W. C. Elskes, supervisor of Plant Systems Division 4511, explains that one of the more important phases of the intensified program of preventive maintenance is the flameproofing of large primary cables in the room-size underground manholes. The cable tap boxes, which are housed in these manholes, are also checked for moisture, loose connections and other possible trouble areas. The various components in the substations are cleaned, adjusted and replaced as needed. At regular time intervals, overhead wires are "resagged" (if they are too taut, cold temperatures could cause damage, and if they are too loose, a wind storm could cause two of the wires to touch).

Supervisors are informed via Management News Briefs before a major power outage so that arrangements can be made in advance if the disruption of service would cause an inconvenience or problem. Standby generators are available to keep environmental test equipment in service.

Crews of approximately 20 men may work 12 hours a stretch to complete the maintenance. It then takes five men to get the plant back in operation.



INSIDE A MANHOLE, Henry C. Sisneros reads off the correct procedure while Louis J. Price (both 4511-1) checks the circuit load of a power line.

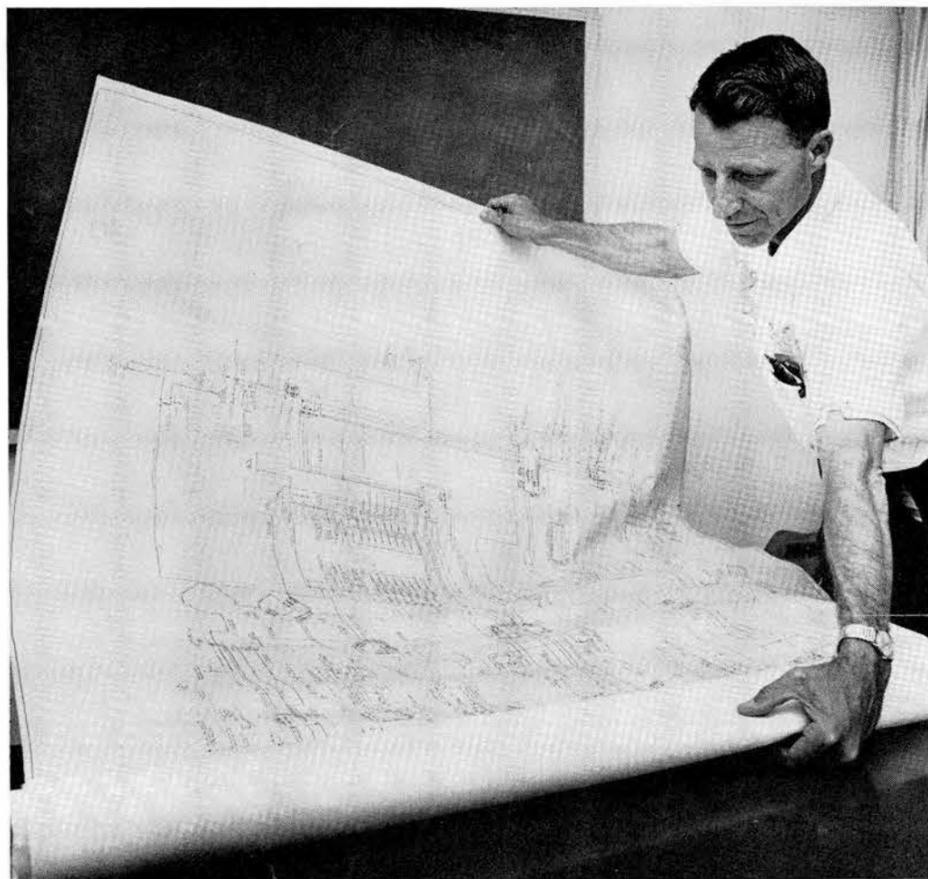
Special Libraries Hold Two-State Meeting

More than 50 librarians from technical and other specialized libraries in New Mexico and Colorado met at the D. H. Lawrence Ranch, near Taos, N.M., earlier this month in what is hoped to be an annual event for exchanging information.

Sandia librarians (all 3420) presenting papers were: Gladys Rowe, "Optical Scanners for Cataloging Application"; Calla Ann Crepin, "A New Method for Producing Catalog Cards for the Sandia Corporation Technical Library"; Florence K. MacPherson, "Environmental Engineering Abstracts"; Sally Van Domelen, "New Retrieval Method in a Safety Library"; and John L. Gardner and M. E. Mefford, "Library Order Forms — A Case Study."

Lee F. Parman was moderator of a session on Management, and John Gardner moderated a session on Public Services. The dinner speaker was Parker Jones (1544), who discussed nuclear accidents at Palomares, Spain, and Thule, Greenland.

Mary McClure was program chairman for the Rio Grande Chapter of the Special Libraries Association.



POWER CABLES at Sandia Laboratory were recently rearranged and their loads were rebalanced by Cliff K. Rudy (4542) prior to putting a fifth substation into operation.

Tickets Available for NAIA Track Meet

The City of Albuquerque is going all out in the sponsorship of the 17th Annual National Association of Intercollegiate Athletics Track and Field Championship Meet here at UNM Stadium tonight and tomorrow.

Top college athletes from throughout the country will be competing in track and field events for the national championships. Winners will represent the United States in the upcoming Olympic Games in Mexico City in October.

Division 3126 in Bldg. 610 has tickets available for Sandia employees at a reduced rate. Adult tickets are available for tomorrow's finale at \$1.25, children 50 cents.

A successful meet (in terms of public support) in Albuquerque might bring the NAIA Championships to our city for a number of years, the Chamber of Commerce feels. The best way to help in this effort is to attend the meet.

New Sandia Pulsed Reactor Topic at Canadian Meet

A number of Sandia papers, mainly dealing with the pulsed reactor, will be presented at the 1968 annual meeting of the American Nuclear Society to be held June 9-13 in Toronto, Canada.

Authors from Applied Radiation Science Department 5220 and their papers are: R. M. Jefferson, "Excess Reactivity Measurements—A Different Approach"; R. L. Coats and P. D. O'Brien, "Pulse Characteristics of the Sandia Pulsed Reactor II"; R. L. Long, "Reactivity Contributions in the Glory Hole of the Sandia Pulsed Reactor II"; F. A. Hasenkamp, "Measured Performance of the Annular Core Pulse Reactor"; and J. A. Reuscher, "Dynamic Mechanical Characteristics of the Sandia Pulsed Reactor II."

Others from Radiation Division II 7113 are: J. A. Halbleib and J. V. Walker, "A Procedure for the Determination of Neutron Spectra from Activation Data" and L. D. Posey and J. V. Walker, "The Fission-Couple Detector: A Low Resolution Neutron Spectrometer for Pulsed Neutron Environments."

Authors

D. K. McCarthy (1341) and P. E. Cassidy (former Sandian), "Solution to Polymerizations of Epoxytetrahydrophthalic Anhydride and Its Utilization in Various Epoxy Systems," May issue, JOURNAL OF APPLIED POLYMER SCIENCES.

M. J. Forrestal (5636), W. E. Alzheimer (1541), and H. W. Schmitt (5636) "Thermally Induced Membrane Stress in a Circular Elastic Shell," May issue, AIAA JOURNAL.

E. W. Harris (3464), "Photographers — Are You Still Under the Dark Cloth?" April issue, THE PROFESSIONAL PHOTOGRAPHER.

F. L. English (5143), "Domain Nucleation on the Surface of BaTiO₃," April issue, JOURNAL OF APPLIED PHYSICS.

J. F. Reed (9322) and S. B. Moore, Ling-Temco-Vought, "A Six Component Semi-Conductor Strain Gage Balance," PROCEEDINGS OF THE 29th SUPERSONIC TUNNEL ASSOCIATION MEETING.

R. P. Pardee (1133), "The Lubrication of Ammunition Fuzing Mechanisms," May issue, JOURNAL OF THE JOINT ARMY-NAVY-AIR FORCE FUZE COMMITTEE.

R. K. Quinn (1111) and Prof. J. J. Lagowski of the University of Texas, "Metal Ammonia Solutions. III. Spectroscopy of Quaternary Ammonium Radicals," April issue, JOURNAL OF PHYSICAL CHEMISTRY.

Welcome . . . Newcomers

April 29 - May 24

Albuquerque	
Jim Armijo	4574
Erlinda E. Baca	3126
Ronald V. Bodo	4152
Roberta H. Chinn	3126
Jeanette A. Diamond	4622
**Lowell Dworin	5150
Virginia L. Goen	3126
Richard V. Harter	4574
David A. Hendren	4574
Beverly A. Holland	3126
*Larry I. O'Connor	5151
*Louis Sanchez	4234
Mary L. Smith	4233
Julia D. Ulibarri	3126
Mary Alice Winter	3321
California	
Jack T. Markin, Los Angeles	5311
Illinois	
Mikell R. Lambird, Newton	1411
New York	
**John H. M. Blakely, Ithaca	5123
* Denotes rehired	
** Denotes temporary	

Service Awards

20 Years



W. W. Arris
2111



E. J. Dadian
4364



D. V. Doleshal
2522



Frank Duggin
4312



D. E. Fitchhorn
2222



F. N. Gurule
2522



L. C. Hilderbrand
4153



R. E. Irvin
2522



Delfino Jinzo
4614



R. G. McBride
3242



B. J. Myer
4131



B. W. Scott
3428



Delia S. Stites
2551



T. W. Taylor
7214



Margaret Wetzel
3421

10 Years

May 31-June 13

J. K. Fjelseth 1321, Emily L. Tapia 1343, Amy C. Anez 3241, H. P. Elledge 4518, R. A. Graham 5132, F. F. Thome 8243, Coy L. Moss 1422, Iola V. Johnson 3126, Charlotte M. Wickham 3126.

R. D. Volk 1411, G. L. Ogle 7126, R. L. Johnson 7226, R. P. Syler 9215, H. B. Masy 2122, R. E. Holben 2212, F. M. Brewster 2234, Connie G. Coalson 7343, Dorothy W. Calloway 9411, J. C. Sanchez 4513, and Eleanor E. Smith 3126.

New Washington Technical Institute Challenge for George W. Elliott

15 Years



G. W. Anderson
8140



L. A. Armijo
4614



J. D. Avis
2525



R. P. Baker
2441



E. M. Beezley
2554



J. D. Benton
8121



H. S. Bluestein
1515



W. C. Colborne
4120



Dorothy Douglass
3126



B. G. Edwards
7131



G. R. Elliott
2454



R. W. Hunke
9331



C. B. Inberg
4374



L. G. Parsons
2126



F. J. Shingola
3242



Antonio Skender
4613

The challenging prospect of helping to set up a new technical institute which will offer courses especially geared to modern industry is in view for George W. Elliott (9331).



He will take a six months' personal leave of absence from Sandia, effective June 1, to become Dean of Faculty at Washington Technical Institute in Washington, D.C. This school was established by Congress a year and a half ago and will open its doors next September to 500 full-time and 500 part-time students. It will offer a full range of occupation-oriented curricula including the engineering technologies.

"The school's purpose," George says, "is to see that a student will be more employable upon leaving the school than he was when he arrived—no matter whether the student attended the school for one quarter or the two full years."

George will be responsible for the operation of technical programs, faculty, curricula, establishing advisory committees, teaching loads, and classroom space. Initially the school will be located in the old National Bureau of Standards Building; however, within five years the campus will be established in the urban renewal area of downtown Washington.

The president of the school is Dr. Cleveland Dennard, an educator who has recently been director of manpower for the city of New York. Initially there will be a full-time staff of 31 and 30 part-time.

George has been at Sandia 13 years. His assignments were in the Personnel organization until last July when he transferred to Isotope Projects Division 9331 to assist in technical direction of SNAP-27. He has a Bachelor's degree in general engineering from Iowa State University and a Master's in business administration from the University of Denver.

New Classification Chapter

President of the National Classification Management Society, L. F. McConnell, System Development Corporation, Santa Monica, presented a charter to the organization's newest chapter recently in Albuquerque.

Jim Marsh, supervisor of Sandia's Classification Division 3414, was installed as president of the recently-organized New Mexico Chapter. National membership in the society of specialists is about 200 with the addition of the 18 members of the local group.

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

CARS & TRUCKS

- '66 VOLKSWAGEN SEDAN, \$1000 plus '55, '56, or '57 Chevy in running condition. Baca, 255-8452.
- AUSTIN HEALEY MK II 3000, sell for \$350 under retail at \$1095. Browning, 299-6384.
- '62 VALIANT 2-dr. sedan, 6-cyl., \$400. Gregory, 344-4419.
- '59 MGA ROADSTER w/65 engine, 3214 Dakota NE, \$500. Roeschke, 268-0994.
- '55 OLDS & '65 MG 1100 sports sedan, one owner cars. Shoemaker, 255-8820.
- '57 KARMEN GHIA, \$595. Sarason, 299-2443.
- '52 DODGE pickup, \$125 or best offer. Gonzales 877-5693.
- '67 FORD FALCON sports coupe, V8, AC, PS, tape deck, \$2570. McVay, 299-3359.
- '62 BUICK ELECTRA Invicta 4-dr. HT, factory air, AT, PS, PB, 6-way PS, \$750. Trump, 299-5162.
- '34 NASH 4-dr., 31,000 actual miles, original, \$1250. Longfellow, 299-7062.
- COLLECTORS ITEM: '51 MG-TD, includes shop manual, fiberglass top, side curtains, new tires, \$500. Swanson, 256-3693.

REAL ESTATE

- DEER LAKE ESTATES cabin site, 2/3 acre, 9 miles east of Cuba, N.M. on highway 126, private stocked lake, electricity & well. Kelley, 299-0104.
- MOUNTAIN CABIN, 18'x30', furnished, located on Grass Mountain in the Pecos high country, \$4500. Donohoe, 299-4076.
- ROBERSON, 2865 sq. ft., including basement, garage; reduced to \$20,800, 5/4%, paneled den w/fr. AC, built-in kitchen w/refrig. Hurley, 298-5250.
- TRI-LEVEL, 4-bdr., 3 baths, den, AC, carpeted, walled yard, 11005 Lexington NE, sale or trade for mobile home. Alexander, 299-7967.
- LOT, just north of Western Skies, view of city, approx. 98'x170', \$60 a front ft., any reasonable offer considered, terms. Summers, 299-4674.
- 3-BDR., 1 1/2 bath, den w/fr, near schools-base-shopping, 605 Ariz. SE, \$18,950. Heath, 255-5418.
- 4-BDR., 2 1/2 bath, 2-stories, elec. kitchen, carpeting, drapes, paneled den, study rooms, \$29,300, 8912 Bellehaven NE. Sanguinetti, 298-8618.
- 3-BDR. ASHCRAFT, 1 1/2 bath, carpeting, hw/floors, drapes, Kitchen Aid dishwasher, dbl. garage, patio, landscaped, 5/4% FHA loan. Huff, 256-9426.
- 50 ACRES, south of Taos, frontage HW 64, small stream, good well, electricity, central to fishing, hunting, skiing, \$240/acre. Marron, 255-3522.
- 3-BDR. in quiet N. Valley on nearly 3/4 acre, \$19,400. Oakes, 898-0236.
- 2-BDR. home on 2 lots, no qualifying, \$85/mo., \$370 down, \$8750 total. 408 Texas N.E. Bascom, 299-9044 or 255-4772.

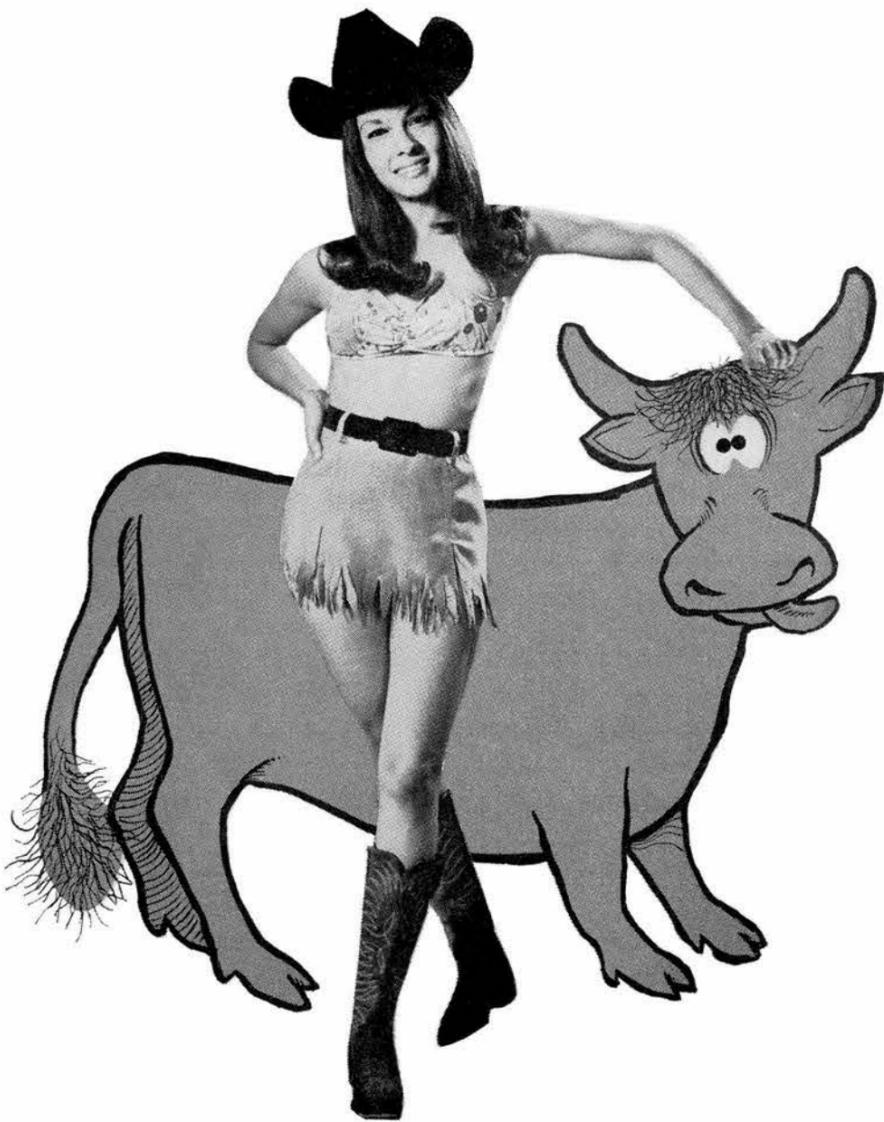
MISCELLANEOUS

- TWIN SIZE mattress, \$10. Cosstick, 268-3515.
- MODEL AIRPLANE, gas engine, accessories & controls included, never flown, \$9. Parks, 296-2261.
- THOMAS transistorized organ, model A-1, w/bench, \$360 or trade for or on piano. Reck, 344-4123.
- 1968-S PROOF SETS, \$8.50; Israel mint stamp collection, \$150; Scott's five volume Airpost Album, never used, \$75. Groll, 898-0641.
- KITTENS, Tiger type, males, looking for a home. Farmer, 296-1774.
- '68 YAMAHA 305cc YM-1, black, 29.5 BHP. Gillon, 255-9162 after 5.

- 16' GLEN L. BOAT KIT, hull is completed, have enough materials to finish deck & all fiberglassing, 7404 Euclid Ave. NE. Irving, 299-0664.
- COCKER SPANIEL puppies, AKC reg. Pass, 256-9663.
- .38 S&W short barrel. Shoemaker, 877-2053.
- DRAWER SLIDE, 13" long, pulls out 9", use for turntable, etc., \$1. Henry, 1828 Florida NE. 256-2467.
- HOOVER spin drying clothes washer, '66 model, portable, compact, 10 gals. water/wash, \$75. Lowrey, 298-4288.
- 2-PIECE Kneihler sectional sofa, 96", reversible cushions, blue matelasse, \$40. Daut, 255-2529.
- 8' SEAR'S pool table w/cue and ball rack, 3 cues, \$100. Prekker, 299-6468.
- METAL STORAGE SHED, 6'x7', \$35; Drexel hook-case head for dbl. bed, walnut, \$45. Abbott 842-9692.
- 15' FIBERGLASS BOAT, 70hp Mercury engine, tilt trailer, \$775 cash. See at Don's Barber Shop, Juan Tabo & Constitution. Downs, 296-4710.
- KENMORE 600 portable dishwasher, 1 yr. old, \$150. Kinney, 298-5281.
- CLASSICAL GUITAR, Pimentel, \$89; box for slot race track, \$12; oak coffee table, \$8. Winblad, 344-3109.
- AKC reg. toy poodles, apricot, tri-international blood lines; Sear's 1750 watt gasoline alternator, less than 20 hrs. running time. Bierly, 298-3609.
- CAMPER ICE BOX, new, \$35. Day, 256-6360.
- BOX SPRINGS & mattress, Englander, foam rubber, dbl. bed size, \$35. Siska, 298-5756.
- HAGEN ULTRA IRONS, 2-9 & pitching wedge, \$40. Johnson, 298-1011.
- KIRBY upright vacuum cleaner w/attachments, \$15. Miller, 255-1324.
- CLOTHES DRYER, Philco electric, needs minor thermostat repair, approx. 10 yrs. old, \$15. Sedillo, 296-2329.
- EVAPORATIVE AIR CONDITIONER; large car top carrier. Cyrus, 344-9538.
- 5-PC. DRUM SET, \$65; guitar, \$40. Griffin, 298-1174.
- AIR COOLER, down draft, 2500 cfm, 1 yr., taken off travel trailer, can be used on home, \$50. Johnson, 255-5427.

- POWER LAWN MOWER, Toro, reel. Sektnan, 296-5396.
- KITCHEN TABLE, 4 chairs, \$15; electric lawn edger, \$5; 2-burner kerosene stove, \$5; pyramid tent, \$25. Peterson, 256-7514.
- SEAR'S 12v car cooler, floor model, \$20. Nunez, 256-3492.
- RED, free-standing fireplace & associated flue pipes. Renken, 296-3944.
- STENOCORD dictating machine w/5 tapes, ear-phones & playback mike, cost \$250, sell for \$150. Langston, 268-6933.
- SEAR'S 20" rail 5-speed bike, \$45; patio umbrella, floral on white, \$10; floor model auto evaporative cooler, \$7; HO train equipment. Rayner, 299-7429.
- '66 HYDRODYNE BOAT, 70hp Mercury, all safety equipment, skis, propellers, complete drive-on trailer, new tires. Sievert, 255-7367.
- 2 BICYCLES, 20" boy's \$10, 20" girl's \$10. Sisson, 296-3883.
- RUG, 9x12 oval braided, bright colors, \$10. Long, 296-5248.
- SCHWIN bicycle, 10-spd., \$45; Basset hound, registered, all shots, \$15. Cash, 242-3721.
- 20" GIRL'S BIKE, \$10. Peters, 298-0963.
- TRAILER, 2-wheel, 4x6 frame; lg. shelves, 24" deep, 6' high, 6' long; German shepherds sired by champion Lavalands Fritzie. Villella, 298-7955.
- GENERATOR, 5 K.W. 60-cycle, AC, skid mounted, \$130. Pena, 898-0197.
- '66 MOTORCYCLE, Suzuki, 247cc, 2 cyl., 2100 miles, \$500; bicycle, men's Sear's Austrian, 3-spd., 26", \$30. Bruce, 299-2542.
- REGISTERED 3/4 Arabian filly, excellent breeding, Simon, 299-0703.
- FREE KITTENS, 2 males, 1 female, black & gray, ready to take home. Lynes, 268-0144.
- 1/2 HP AC 2-spd. motor, \$5; 1 GHP motor w/fan, \$8; stainless steel Frigidaire electric oven, \$15; car chains, \$4. Wheeler, 256-6230.
- FREE KITTENS, female, 1/2 Siamese. Hughen, 296-2600.
- LAWN VACUUM, 24" Craftsman, 3.5hp gasoline engine, nearly new, \$55; horseshoes, regulation set, new, \$5. Sims, 255-6967.
- TRAILER, '55 model, 18' single axle Airstream, Monomatic toilet, heater, butane refrigerator, electric brakes, sleeps 4, \$1800. Jackson, 298-2087.

- POODLES, toy, AKC, 8 wks. Miller, 299-9247.
 - SWIMMING POOL, 18' diameter w/filter, etc. Singleton, 299-1615.
 - TWO TIRES: 8.45x15 (7.60x15) w/7/32 rubber nylon 4-ply, \$7.50 each. Kohut, 298-0695.
 - 16' SELF-CONTAINED travel trailer, used on one trip, pulled less than 2000 miles, cost over \$2700, asking \$1750 w/terms. Browne, 344-9675.
 - DISHWASHER, GE portable Mobil Maid, \$40. Randall, 299-0372.
- ### FOR RENT
- 2-BDR. unfurnished apt., utilities paid, vicinity of Los Altos-Grant schools, 10 min. ride to Sandia, lg. kitchen, ample closets & cupboards. Bernyk, 299-9171.
 - FURNISHED ROOM for lady, private bath, kitchen facilities, NE area. Sandoval, 298-2755, 8 a.m. - 5 p.m.
 - 2-BDR., 2 bath, unif., completely enclosed patio could be used for den, SE near Base, electricity, water furnished, \$135/mo. Available June 15. Balfour, 265-4677.
- ### WANTED
- SHARE THE RIDE to University of Albuquerque noon hour Monday thru Friday, June 10 to Aug. 3. Johnson, 264-1350.
 - RIDE WANTED from 10 miles east on Hiway 66 to vicinity of Gate 4 or 5. Howe, 264-1401.
 - GOOD USED counter top electric range. Durant, 298-4952.
 - 1, 2, or 3 passengers to share expenses of a round-trip to vicinity of Ohio in a new Cessna 177. Will leave about June 29. Floyd, 299-2419.
 - ONE more rider in 5-member car pool, Coronado Crest or Foothill Estates, drive one day a week. Bartlett, 299-4861 after 5:30.
 - 6BDC to 110 VAC converter, low current output, reasonable. Longfellow, 299-7062.
 - BABYSITTING in my home, reasonable, experienced, walled yard, 233 Moon NE between Wyoming & Eubank, off Central. Spencer, 298-6482.
 - CHILD CARE in my home, good, reliable. James, 298-6324.
 - RIDE WANTED from UNM to Sandia after 7-8 a.m. class daily during summer session. Mikkelsen, 268-1485.



WESTERN STYLE chuckwagon roast beef is the featured buffet at the Coronado Club social hour tonight. Dody Kurtz (4135) reminds you that the fun starts right after work. The buffet is served from 6 to 8 p.m., and dancing is scheduled from 6 to 9 p.m.

Coronado Club Activities

Swimming Season Going Full Blast; Three Swinging Social Hours Set

With the grand opening of the Coronado Club's twin pools making a big splash yesterday, the swimming season is now going full blast. The pools are open for recreational swimming from 11 a.m. until 6:30 p.m. every day. Adults have the north pool exclusively during lunch hours and immediately after work.

A full schedule of classes and competitive swimming events for youngsters is available at the Club office. So are season tickets. A family season swim ticket for a

year 'round club member costs \$5. For a non-continuous member, the price is \$28.

Social Hours

First part of the June calendar concentrates on social hours. Tonight, the Club's famous chuckwagon roast beef will be spread. Bud Fisher's aggregation will be on the bandstand making the happy music. The buffet costs \$1.75 for adults, \$1.50 for kids.

On Friday, June 7, the Rhythm Masters will play for dancing while the fried chicken buffet is spread. The buffet costs \$1.25 for members, \$1 for children.

Tommy Kelly, the smiling Irishman, returns to the bandstand Friday, June 14, for social hour entertaining. The Club's Mexican food buffet will be spread at \$1.25 for adults, \$1 for children.

Pat Reich and piano will entertain during June social hours in the main lounge from 9 until 12 p.m.

Bridge

Duplicate bridge meets each Monday evening at 7. Ladies bridge meets Thursday, June 6, at 1:15 p.m.

Sanado Club Luncheon

C. S. Johnson (7252) will discuss "The Scientific Quest for ESP" at a Sanado Club sherry luncheon Tuesday, June 11. For reservations call 265-1072.

Luncheon Special June 6

Another Szabo Food Service 99-cent-special luncheon will be served at the Club, in Bldg. 839 and the Area III cafeteria Thursday, June 6. This one will be a Mexican food delight including cheese enchiladas, beef tacos, refried beans, Mexican cole slaw, sopapillas with honey, rice pudding and coffee or tea.

Home Firearms Safety Course

The Coronado Club will present a three-session course in home firearms safety starting Monday, June 10 at 7 p.m. Other sessions are scheduled June 17 and 24. Instructor Gerald Wilson (7233) says the course is primarily for novices and will include demonstrations and a film. A 50-cent registration fee is required. To enroll, call Gerald at home, tel. 282-3225.

Sandia Safety Signals

Ultraviolet Rays

The germicidal-deodorizer lamp in a clothes dryer emits ultra-violet rays like those that cause sunburn. For this reason, the eyes should not be directly exposed to the rays.

Electrical System

A car's battery is the heart of the electrical system. Every time you stop for gas, you should ask the attendant to check your battery to see if it is filled with distilled water to the proper level. If you notice that your lights are weak, the horn doesn't sound loud, etc., you should have your battery checked immediately.

Tire Fire

A truck containing blasting caps and cases of dynamite was driven seven miles with flat tires on the right rear set of dual wheels. After the truck was parked, spontaneous heating caused the flat tires to ignite and flames spread to the cargo. An explosion occurred, causing damage to many of the buildings in Merkel, Texas. Campers and trailers can be set on fire by the same means.

An Albuquerque Landmark

George Shelton Restores Elk Statue

For more than 30 years, a life-size statue of a large elk has been the symbol of the B.P.O.E. Lodge 461, Albuquerque Elks Club. Some months ago, vandals lassoed the head of the statue, tied the rope to a car and tore off the head.

Now, restored to its monumental elegance with six-foot antlers and patriarchal stance, the elk statue once again gleams in the Albuquerque sun. The restoration work was performed by George Shelton (3126).

George's paintings are familiar to many Sandians—his oils and watercolors decorate the Employee Services offices in Bldg. 610 and a large oil landscape hangs in the lobby of Personnel Bldg. 832. He has a one-man show of severe black and white designs now on display at Yonomotos.

But sculpting is something else—particularly rendering a work which must fit into a larger piece, matching style and materials and resembling an original remembered by thousands of persons.

"It was a challenge," George says, "and that's why I took on the project. Years ago I did a little sculpting and I wanted to see if I still had the touch."

George built one complete head, but this one didn't satisfy him. For his second attempt, he sketched a mounted elk head many times, took measurements and re-structured the framework inside the elk's neck to give a different angle to the head. George used a wood and steel frame inside the head which he bolted to the original armature inside the neck.

Around the frame he wrapped heavy paper and then shaped the head over this using a mixture of cement and a small amount of plaster. The finished head



RESTORED—Artist George Shelton (3126) made a new head for the Elk's Club statue after the original was destroyed.

weighed about 120 pounds. He filled in the connecting neck portion with more cement and then painted the complete statue bright gold.

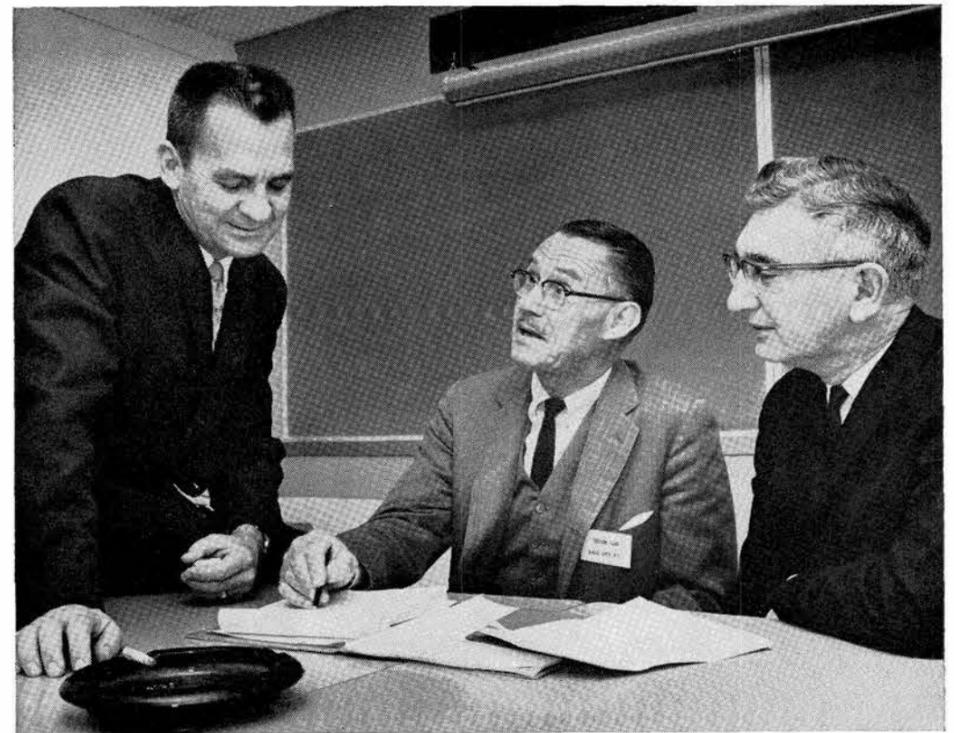
"And there it is," George says, "as good as new."

Maybe better, the Elk's Club members agree.

Promotions

Gail B. Ward (3463) to Staff Associate Administrative
James G. Minger (8236) to Staff Associate Administrative
John R. Jewell (4233) to Assembler
Ernest Costales (4234) to Assembler
Ann R. Hawk (4234) to Assembler
Emilo M. Chavez (4623) to Layout Operator
Robert A. Brooks (4631) to Technician
William J. Mantelli (4234) to Technician
Raymundo J. Lopez (8245) to Chauffeur
Hollis C. Miller, II (8222) to Laborer
Laura M. Kurtz (4135) to Typist Clerk
D. June Nieto (4211) to Typist Clerk
Marie A. Arellanes (4333) to Record Clerk
Jake M. Romero (3415) to Mail Clerk
Frances P. Armijo (4151) to Accounting Clerk
Cecelia G. Cooke (3126) to Secretarial Stenographer
Marybelle Romero (2526) to Teletypewriter Operator
Antonia M. Barnhill (2552) to Teletypewriter Operator
Edna P. Lee (4212) to Service Clerk
Patricio Sanchez (9411) to Tabulating Equipment Operator
Helen P. Maurer (4363) to Travel Clerk
Leo R. Parsons (3415) to Senior Clerk
Daniel F. Trujillo (9411) to Computer Facility Operator
Ermenegildo Garcia (4615) to Control Analyst
Randall G. Gummus (8253) to Reproduction Equipment Operator
Maurice A. Coil (8253) to Camera Operator
William D. Bonivert (8253) to Camera Operator
Arthur H. Andazola (1343) to Laboratory Assistant
Joseph C. Pelletier (2491) to Staff Associate Administrative
Walter J. Henderson (8214) to Staff Associate Administrative
William W. Rowe (5224) to Staff Assistant Technical
Gerald Montgomery (4234) to Wireman
John E. Cronin (4221) to Sprayer

Martin H. Gonzales (4224) to Molder and Assembler
Wilfred Sanchez (4614) to Truck Driver
Carl J. Hullinger (4623) to Packer
Joe N. Lovato (4623) to Packer
Hermes Chavez (4252) to Rigger
Rudy Lucero (4575) to Laborer
Refugio A. Marroquin (8222) to Laborer
Timothy Roubesh (8245) to Utility Operator
Ann W. Dunsworth (3126) to Typist Clerk
Della Reinhardt (3126) to Typist Clerk
Maria Borg (4333) to Record Clerk
George Nunez (3415) to Mail Clerk
B. Joy DeVolk (3126) to Secretarial Steno
Mary Helen Gallegos (3126) to Secretarial Steno
Betty Jo Marrow (3126) to Secretarial Steno
Virginia O. Chavez (4311) to Stenographer Clerk
Elfrides Salazar (4333) to Service Clerk
Geraldine S. Jewell (4622) to Control Clerk
E. Collene Derrick (4135) to Invoice Clerk
Paula R. Stronach (2232) to Microreproduction Equipment Operator
Joe Tapia (9411) to Tabulating Equipment Operator
Wilbur D. Walters (9411) to Tabulating Equipment Operator
Anthony N. Chaves (4615) to Property Clerk
Leo C. Cordova (4615) to Office Equipment Investigator
Thomas Clyde Reitz (8231) to Camera Operator
Stephen M. Halleck (8242) to Messenger
Joseph L. Thomas (8242) to Mail Clerk
Sylvia J. Lopez (8115) to Senior Clerk
Sharon J. Ham (8100) to Secretary
Carol Ann Loving (5140) to Secretary
Helen M. Walsh (1100) to Secretary
Thomas L. Morgan (8242) to Messenger



DISCUSSING PROGRAM for the Atomic Energy Commission's Albuquerque Operations conference on operations and personnel are (l to r) R. R. Malone, chief of Administrative Branch, AEC/SAO; Judson Ford, director of Organization and Personnel Division, AEC/ALO; and G. W. McCarty, chief of Project and Review Section, AEC/ALO. About 50 AEC and contractor personnel attended the two and a half day conference held at the Coronado Club recently. The program included such topics as equal employment opportunities and developing programs for hard-core unemployed.