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Vol. 8, No. 18

ALBUQUERQUE, NEW MEXICO

September 21, 1956

# More Than 200 Sandians Go To UNM Classes This Semester

Registration completed, some 200 Sandia employees are enrolled in job-related college work at the University of New Mexico this fall.

The new Educational Aids program, under which many of these employees are studying graduate level courses, is being administered by the Staff Training and Education Division, 3123. Members of the Educational Aids Committee are: R. B. Powell, 3100, chairman; J. R. Townsend, 1600; S. C. Hight, 5100; F. E. Burley, 2500; and L. E. Lamkin, 7300. D. A. Jenkins, 3123, is secretary to the committee.

#### Chemistry Classes Lead

Topping the list in enrollment is the class in chemistry which has 45 students from Sandia. The class is being offered in Bldg. 849 in the Technical Area, Dr. Guido H. Daub, Sandia Consultant and Associate Professor of Chemistry at UNM, is teacher. The first class meeting was last night.

Negotiations underway with the University of New Mexico will probably result in more classes being offered outside working hours for the convenience of Sandia em-

ployees. Additional courses that cannot be given in the evening will be set up to start at 8 and 11 a.m., 12 noon, and 1 and 4:30 p.m. for attendance under time off provisions of the Educational Aids Program.

Employees are being asked by Division 3123 to return questionnaires now in circulation which will help in scheduling courses wanted by Sandians during the spring semesters.

University officials have asked that Corporation education requests for the spring semester be made to them early in October.

#### Special Classes

If requested courses are not through established schools in the Albuquerque area and there is sufficient interest, jobrelated technical courses will be organized by 3123 and taught on Corporation premises in the eve-

These classes will be taught by Corporation employees. Interest has already been expressed in such studies as statistical quality control, thermodynamics, calculus as applied to Sandia projects, and radar principles.

Certain in-hour courses will be taught in fields of technical writing, efficient reading, interviewing, handling group meetings, and use of technical and engineering services. Enrollment in these courses is limited to employees whose work would be particularly benefited by such specialized training.

# **Professional Engineers** Meet Monday, Sept. 24

A dinner meeting of the New Mexico Society of Professional Engineers is scheduled Monday, Sept. 24, at 6:30 p.m. in the Simms Building Restaurant, according to A. B. Metzger, 3210.

Edward C. Riggs, research assistant of the state examining and licensing investigating committee, will discuss changes proposed by the committee toward combining all licensing boards in New Mexico.

Registration certificates will be presented to newly registered engineers at the meeting.

Reservations for the dinner may be obtained by calling Mr. Metzger, ext. 23258.

## IRE Circuit Theory Group Meets Thursday, Sept. 27

The Professional Group on Circuit Theory will meet Thursday, Sept. 27, at 8 p.m. in Rm. 217 of the Electrical Engineering Bldg. on the University of New Mexico campus. C. S. Williams, 1454, will present a talk on the elements of Circuit Theory.

# Winter Hours Start For Sandia Sept. 30

Almost time to set your alarm clock ahead a half Effective Sunday, Sept. 30 at 2 a.m., Sandia corporation will adopt the wintertime work schedule.

The first shift works from 8 a.m. to 5 p.m. with lunch from noon to 1 p.m. The second shift starts

at 5 p.m., lunch from 9 to 9:30 p.m., and ends work at 1:30 a.m.

The summer schedule will be resumed April 28, 1957.

# Dr. Stoughton Bell to Teach UNM Seminar in Nonlinear Mechanics

The University of New Mexico Department of Mathematics has announced the offering of a seminar in Nonlinear Mathematics to be taught by Dr. Stoughton Bell, of the Sandia Corporation Systems Analysis Department.

Prerequisites include advanced caculus and ordinary differential equations. The seminar is open to registered graduate students. The course may also be taken on a non-credit basis, but for credit the student must be registered in the UNM graduate school.

The class will meet Mondays from 4 to 6 p.m. in Rm. 105 Mitchell Hall. The first meeting was Sept. 17, but students may still enter. Today is the last day for registration without the \$5 penalty.

Further information may be obtained from UNM Mathematics Department, telephone 7-0391, ext. 309 or from Dr. Bell, ext. 42238.

# Sandians to Take Part in Metals Conference Here

A two-day technical conference on the subject "Heat Tolerant Metals for Aerodynamic Applications" will be held in Albuquerque, Jan. 28-29, Ken Helmstadter, 1621-4, publicity chairman of the Albuquerque Chapter of the American Society for Metals, announces.

The conference will be sponsored by the Albuquerque Chapter of ASM, the Los Alamos Chapter, and the Extension Division of the University of New Mexico.

Featuring 11 technical papers and participation by outstanding members in the fields of aerodynamics and metals, the conference should have an attendance of more than 500 persons from all parts of the U.S., Ken said.

J. W. McRae, Sandia Corporation President, will make an introductory address for one of the technical sessions. Paul W. Rowe, Analytical Aerodynamics Division Supervisor, 5141, will present a paper on the subject. "Problems Relating to the Need for Heat. Tolerant Materials in Aerodynamic Applications.'

J. R. Townsend, Director of Materials and Standards, 1600, will close the conference with a conference review, summary and evaluation.

# Colloquium to Hear Merritt, Richardson

Two Sandians, Melvin L. Merritt, 5110 and H. M. Richardson, 5111, will discuss "Weapons Effects Studies at Redwing" at a meeting of the Sandia Research Colloquium Wednesday at 9:30 a.m. in the basement conference room of Bldg. 802.

# Sandia Employees Plan Gem, Mineral Exhibit

Numerous Sandians will participate in the planning or exhibiting of gems and minerals at the 1956 State Fair Hobby Show.

At Fair Hobby Show

The Albuquerque Gem and Mineral Club, headed by Dean Wise 2132-1, and the Albuquerque Rockhounds, whose president is Merrill Murphy, 1423, will hold a joint showing of competitive entries as well as an educational exhibit.

The hobby show at the State Fair grounds will be open from 9 a.m. to 6 p.m. Tuesday and Wednesday to receive entries.

Other Sandians participating in arrangements include: W. Oldheiser, 2415, who will assist in setting up the displays; Mrs. M. Murphy, whose husband is in 1423, will check in entries, and E. Wood, husband of Ellen Wood, 2552-3, will direct the non-competitive

# Area III Building To Be Remodeled

Extensive remodeling of Bldg. 6540 in Area III is scheduled to begin about Oct. 1, D. S. Tarbox, Manager of Plant Engineering Department, 2440, announces.

The Quonset-type building, now used for storage by the Materials and Standards Engineering organization, 1600, will have additional partitions, ceiling work, power and lighting, heating and ventilation equipment and duct work installed.

It will become the instrumentation collection point for information on Area III testing of the Centrifuge, the Drop Tower and the Rocket Sled.

Cost of the construction is estimated to range from \$17,000 to \$18,000. The alterations should be finished about Dec. 1.



CALLING ATTENTION to the Sandia Corporation State Fair exhibit will be a balloon of this moored at the north end of the Midway, near the Dairy Building where the Corporation exhibit will be located. The balloon will be moored near a truck housing various instruments that will allow the balloon to serve a double purpose. In addition to calling attention to the Sandia display, the balloon will be undergoing tests to determine the ruggedness of the bottom shroud while in the air,

# Ben J. Russo to Visit Facilities of Radio Free Europe

Ben J. Russo, 5513, will leave Oct. 18 to visit the Crusade for



Freedom, Inc., facilities in Germany. He has been state chairman of the group for three years.

A group of 60 persons will make the tour.

Planned activities will start in New York City with a reception, luncheon and briefing in the organization's activities and pur-

Then Ben will fly to Munich. Germany, where a reception will be given by the American Consul General followed by a tour of Radio Free Europe studios. Elsewhere in Bavaria they will visit one of the balloon launching sites where messages are floated across to East Germany and other Communist dominated countries.

The group will travel on to West Berlin where they will be briefed at the U.S. Army Headquarters then taken on a tour of East

In Paris a briefing will be held at SHAPE followed by a reception by SHAPE officials. Ben and the others will leave Oct. 28 by plane for New York City.

# ASM Meets Sept. 27

Thursday, Sept. 27, is the meeting date for the American Society for Metals, Ken Helmstadter, 1621-4, publicity chairman, announces. Keith Mead, 1621, will discuss the physical properties of titanium as compared to other engineering materials at 7:30 p.m. in the conference room of the Mechanical Engineering Building at UNM.



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Cherry Fellner, Don Graham, Assistant Editors Robert S. Gillespie, Editor

# Register--Then Say It at the Polls

The non-partisan "Register, Inform Yourself and Vote" Program in this country has come forth with the slogan "Don't cry on your neighbor's shoulder - say it at the polls.

This completely non-partisan undertaking has been endorsed by both the Republican and Democratic National Committees, the governors of 48 states, eminent citizens from every walk of life and leading churchmen of all denominations.

"Say it at the polls," is the battle cry.

But, before you can say it at the polls you have to register. This year, more than ever before, voters in Bernalillo county and the City of Albuquerque will find it easy to register. It isn't necessary to go to the County Clerk's office to complete the brief task, although you can do so if you can get there during their open hours - 8 a.m. to 4:30 p.m. On Sept. 22 and 29 and Oct. 6 the office will be open from 8 a.m. to noon.

Elsewhere in this issue of the Sandia Lab News you will find a list of registration locations which have been set up by public spirited organizations. Many of them are open in the

This year, there will be no excuse for not being registered, but do it before Oct. 6.

Be sure you are registered then listen, read, look, talk, argue, think and vote.

At Legion Convention

Recently returned from the

Hugo was an alternate delegate

to the conclave and is past com-

mander of Post 72 in Albuquerque,

past member of the state executive

committee, and is presently chair-

man of the membership committee.

convention were the talks by Vice

President Nixon, presidential can-

didate Stevenson, and George

Meany of the AFL-CIO - as well

as the seven and a half hour

Legion parade.

To Hugo the highlights of the

American Legion national conven-

tion in Los Angeles is Hugo Flores,

# Weddings

Marilyn Swanke, 2713-4, was married Sept. 8 in Santa Fe to Edward Culver of Albuquerque.

The bride was attired in turquoise velvet with white velvet accessories. Following the ceremony the couple returned to Albuquerque where a reception for the immediate families was held at the home of Mr. and Mrs. Paul

After a honeymoon in northern New Mexico, the couple will be at home at 4818 Crest Ave.

Marilyn has been with the Corporation six months.



Mrs. Culver Mrs. Montgomery

A recent bride was the former Annie Wade, 2225, who was married in Seymour, Tenn., to Robert Montgomery. The evening ceremony was held in the Vestal Methodist Church.

After a honeymoon in Knoxville the couple is now at home at 10605 Ralph, N.E., Albuquer-

Annie has worked for the Corporation a year. Her husband is stationed at Sandia Base with the

The chapel of St. Paul's Lutheran Church was the scene of the recent marriage of Elaine M. Burton to George H. Schivley, Jr., of West Newton, Pa. The Rev. L. C. Soker officiated.

Elaine is in 2712 and has been with the Corporation a year. Her husband is stationed here with the Air Force.

The couple will make their home at 132 Virginia N.E.



## Chuckwagon Outing

A chuckwagon outing will be held by Department 2520 Sunday.

The group will meet at Bear Canyon at 6 p.m. for outdoor cooking and later country style music will be provided.

#### Vacation Ribbons

Following a tradition set in the past three years, five Sandians spent the Labor Day week-end at Ah Wilderness Dude Ranch near Durango, Colo. The group enjoyed hiking, riding and fishing.

Climax of the festivities was a "clown race" on horseback with Luke Heilman, 3200, taking the first place ribbon. Bob Flaxbart, 2417, came in second and Ed Hutson, 2450, Bob Hopper, 2400, and Les Rowe, 2410, won third places in various categories.

"It was all for laughs," Luke said.

#### Wedding Anniversaries

Mr. and Mrs. William G. Jenkins will observe their 31st wedding anniversary Sunday. He is manager of Production Control Department

Joining them in the celebration will be their daughter, Nancy, and son, Bill, 7422, and his wife.

Congratulations to Mr. and Mrs. Robert Flanagan, 5124, who observed their ninth wedding anniversary Sept. 4.

#### Tech Writers Delegate

A Sandia Lab News reporter has been honored by a national organization. Max Weber, 5122, was recently elected to serve as a district delegate for the Society of Technical Writers. His district is composed of eight states.

Max was president of the Albuquerque chapter last year and currently is serving as program chair-

# Fishing Adventures

Three employees of 7225-5, Billie Earnest, Virginia Southerland and Mable Harry and their husbands made a one-week trip to Guaymas, Mexico, where Virginia proved her prowess as a fisherwoman by landing a 46pound dolphin.

On another fishing trip Maxie Allan, nine-year-old son of Max Allan, 4113-1, caught his first fish, a 16 inch Rainbow trout.



#### **Dames Club Hostess**

Instead of "tea for two" Amy White, 2320, is busy planning tea for 200 as part of her duties as president of the University "Dames" Club.'

The National Association of University Dames was organized to promote a spirit of friendliness and to provide social ties and cultural interest among its members. Membership is open to wives of students, married women students, faculty wives and mothers of students.

Amy believes there are a number of Sandia women who are eligible for membership, therefore a "get acquainted" tea will be held tomorrow from 2 to 4 p.m. at Dorm T-20 on the University campus. This will be the club's first social function of the year.

Additional information may be obtained by calling Amy at ext. 35243.

## At Fraternity Convention

Frank Grubbs, 4113, district president of Pi Kappa Alpha fraternity, attended the group's first national convention in Mexico City Sept. 2-5.

He also participated in a National Leadership School in San Miguel de Allende.

# Calculus Class

Dr. Richard C. Hildner, of Sandia Corporation Systems Analysis Department, 5120, is teaching a class in Introduction to Calculus at the University of New Mexico. The evening credit course is held Tuesday and Thursday from 8 to 9:50 p.m.

# Congratulations

Mr. and Mrs. Floyd E. Forsythe, 5242-3, a son, Mark Edward,

Mr. and Mrs. Marvin Bauder, 5241-2, a son, Alan Neil, Sept. 3.

Mr. and Mrs. Cecil L. Page. 7412-3, a daughter, Susan Elaine, Aug. 20.

Mr. and Mrs. E. W. Shepherd. 1460, a son, Edward William, Sept. 8.

Mr. and Mrs. Audilio (Mike) Barela, 7241-4, a daughter, Anna Maria, Sept. 6.

Mr. and Mrs. Woodrow Lerke, 2414, a daughter Deborah Jean, Sept. 4.

Mr. and Mrs. Allan Skinrood, 5224-2, a daughter on Sept. 12.

Mr. and Mrs. John Dickinson, 5215, a son, Richard, Sept. 1.

Mr. and Mrs. Ed Domme, 2523, a son, Thomas Michael, Sept. 10.

Mr. and Mrs. Bob Norvill, 2514, a daughter, Carrie Lea. Sept. 7. Mrs. Norvill was formerly a secretary in 1262.

Mr. and Mrs. Oliver Gallegos, 2351-2, a daughter Diana Marie,

### Canada-Alaska Vacation

Making the most of the end of summer was Dorcas Crosby, 4135, who recently returned from a trip through Canada, Alaska and the Yukon. One of the highlights was a scenic route between Skagway and Carcross which was traveled on the Yukon narrow gauge railroad.

### 2711 Picnic Sunday

Organization 2711 is planning its second picnic of the year Sunday on the north side of the Sandia Mountains.

### Get Well Wishes

Wishes for a speedy recovery are extended to Jo Ann Urevitch, 2230, who is recuperating at her home after major surgery.

Wishes for a speedy recovery are extended by 2711 to Kay Wilson.

#### Bi-Ocean Plunge

Swimming in both the Atlantic and Pacific Oceans the same day was a feature of the three week trip to Mexico made recently by Richard Angell, 7123, and his wife.

They traveled the Central Highway from Juarez to Mexico City and also followed the recently opened road to the Isthmus of Panama and to Tejauntepec.

### Iowa Picnic Sept. 20

Attention all Sandians from Iowa. The annual Dubuque, Iowa, picnic will be held Sunday, Sept. 30 at the FOP grounds off Rio Grande NW with a pot luck dinner slated for 12:30 p.m.

All former residents of the land of tall corn are invited. For further information call Lorraine Flores, Alb. 4-5082 or Modesta Olds, Alb. 2-6787.

# Bear Hunters Successful

Four mighty hunters returned from the Pecos high country Sept. 9 each with a bear.

The successful nimrods were Julian Sanchez, Vern Morrison and his son Ron, and Pat Sanchez. All are in 2452 except Ron.

Each of the bears weighed between 250 and 300 pounds dressed.

# M. N. Tidwell Dies At Home Sept. 12

Maxwell N. Tidwell, a Sandia Corporation employee since Nov.,



M. N. Tidwell

He was 33 years of age. Death was attributed to a heart condition.

"Max" had been on sick leave since Aug.

He had worked as a checker, a receiving clerk, a cost and accounting clerk in 4152, and for the past four and one-half years as a stock anal-st in 2471.

Survivors include his widow, Elizabeth, and children Richard, 10. and Denise, 2, who live at 534 Mission Ave. N.E.

# Sympathy

Sympathy is extended to Mrs. Dorothy Graves, 2462, whose husband, Galen, died Sept. 7 after a long illness. He was 41.

Galen was formerly employed in 2412 as a millwright but terminated his Corporation job in Feb., 1954, after a series of strokes left him disabled.

He is also survived by two children-Glenna, 14, and David,

A note of sympathy to Esther Halloway, 4131, for the recent death of her father in Marion, Indiana.



# **Promotions**

DAVID M. WILKINSON to supervisor of Mechanical Design



Section 2443-2, Plant Engineering Department.

"Dave" has been working in plant engineering at the Corporation for the past six years.

This has included mechanical design of buildings and utilities. Prior to coming here he was em-

ployed three years by the Rockwell Manufacturing Co. in Ohio in the Multiplex division.

Before that for 18 years Dave was in the plumbing, heating and air conditioning business with his father in Norwalk. Ohio.

He holds a Bachelor's degree in mechanical engineering from Ohio State and is a member of Tau Beta Pi, engineering honorary so-

JAMES J. GRADY, JR. to supervisor of Purchasing Section

1253-4, Engineering Department. 1250. Livermore Branch of Sandia Corporation.

"Jim" has been with Sandia six years. started as

an expediter on Sandia contracts and later worked as a purchaser in the test site and mechanical purchasing organizations. He was transferred to Livermore in July.

In 1950 Jim compiled and published a tourist promotion publication in Albuquerque. From 1946-49 he was sales manager for the J. K. Franks Advertising Agency in Dover, N.J.

Jim has a Bachelor's degree in English from Seton Hall College in South Orange, N.J.

During World War II he served in the Air Corps for five years and was awarded the Distinguished Flying Cross and Air Medal for service in the CBI theater.

FRANCIS J. MURAR to supervisor of Project Section 1272-2,



Engineering Department, Livermore Branch of Sandia Corporation.

"Frank" came to the Corporation in January, 1951. He has worked in tele-

metering, field testing and development work. Since early this year he has been at Livermore.

He was previously employed a year by the American Construction Equipment Co. in Los Angeles as a junior engineer.

Frank received his BE degree in electrical engineering from the University of Southern California in 1950. For one semester he was an assistant instructor at the same

He is a member of Eta Kappa Nu. electrical engineering honorary, and Tau Beta Pi, engineering honorary.

Frank was an aviation student at

GEORGE E. POWER to supervisor of Structural Design Section

2441-1, Plant Engineering Department.

George came to the Corporation in 1951 after two years as an estimator and engineer for Rio Grande



He also worked four years as an

engineer for various steel and construction companies in New York. During and after World War II

George was with the U.S. Corps of Engineers, Syracuse District, first on flood control and later on military projects.

Before the war he was employed by the Erie Railroad for 12 years as a designer in the department of structures in Cleveland and New York City.

George has a Bachelor's degree in civil engineering from the University of Maine. He is a member of Tau Beta Pi, engineering honorary, and has a professional engineer's license in both New York and New Mexico.

WILLIAM E. BOSKEN to supervisor of Environmental Test Laboratory 1611-6,

Test Laboratory Department. "Earl" has



been in organization 1600 since March, 1952, when he first joined the Corporation.

The previous 17 months he was in the Air Force, first attending an electronics school in Biloxi, Miss., and then stationed at Sandia Base.

Earl also served in the Field Artillery from 1943-46, including overseas duty at Hawaii.

He has a BS degree in chemistry from the University of Ohio and also attended the University of Cincinnati.

# Work on Sandia's New Office & Lab To Start Shortly

ing 836 is now underway in the Sandia Corporation Tech Area. Soon after it is razed construction will commence on the new officelaboratory building at the site on 7th Street, east of Bldg. 802.

Robert E. McKee General Contractor, Inc., has been awarded the contract for the 79,000 squarefoot, two-story building. Bid price was \$1,235,370. The structure will be in the shape of a quadrangle and will be built of reinforced concrete frame and masonry filler

While construction is underway,



"UNIVERSITY NIGHT" at the Coronado Club recently found more than 100 Corporation and military personnel conferring with representatives of the University of New Mexico on individual educational needs. L to R are Siegfried Thunborg, 1281-1, Dr. Harold O. Reid, Director of Extension, Summer Session and Community Services, UNM, Ted Smart, 1452, and Johnny Canfield, 1464.



ANCIENT COINS are displayed by Sandia's Charles Rettinger who started his hobby while a resident of the Middle East.

Company Praised

The Sheffield Corporation, K. S.

Spoon, Sandia Corporation Pur-

chasing Agent, commends the

company for its help in providing

Sandia with a method of accur-

ately measuring the inside di-

ameter of mercurial barometer

The problem, which couldn't be

solved by mechanical or optical

methods, was turned over to the

Ohio firm, experts in air gaging

"Your engineering department

In a letter to the president of

Sandia Commends Ohio Firm On

**50th Year of Service to Industry** 

# Middle East Army Duty Gave Start to Ancient Coin Search

One of the most faithful Sandia exhibitors at the State Fair is Charles Rettinger, 2152-2, who has shown portions of his rare coin collection regularly since 1945.

Last year he won first prize in the ancient coin category. At first he exhibited as an individual, now his coins are part of the showing by the New Mexico Coin Club, which he helped organize.

Arabian, Persian Coins

Charles is known in numismatic circles for his early Arabian and

was contacted," Mr. Spoon wrote.

"They dug into the problem and

came up with proper plunjets,

plastic tubes, and ring gages. These elements, tied in with the

Precisionaire Comparator, did the

Do Work Quickly

Now Sandia Corporation tech-

Standards Department,

nicians in the Lengths Measuring

Section of the Physical and Elec-

1650, may evaluate barometer

tubes in a matter of minutes to

the accuracy of 25 microinches

the entire depth of a 36-inch

"Air gaging and Sheffield En-

gineering," Mr. Spoon wrote,

"make a routine job out of what

could have been a very difficult

trical

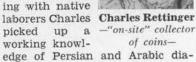
barometer tube.

measuring job."

Persian coins, two of which go back to 300 B.C., the time of Alexander the Great's journey through the Middle East en route to India. These are classed as museum pieces.

He started his collection during World War II when he spent two

years in the 334th Army Engineers maintaining the supply line from the Persian Gulf Command to the Russian border. In working with native picked up a working knowl-



Although coins were merely

coins to him in America, Charles said, "I had always been interested in the Middle East and one day I was reading a book on Persia in which the chapter headings were cuts of old coins." That was enough to start him collecting.

# Natives Helped

After passing the word around that he was interested in ancient coins, Charles was deluged with coins of all shapes and forms. At one time he figures there were more than 200 persons on the lookout for additions to his new hobby.

Charles' knack with foreign languages helped him when he visited the Arabs in their black tents or sat around the fire with nomads. One of his regular contributors was the head "dervish" for the northern part of Persia. The coins were purchased with gifts or Persian currency.

# Has Coins Catalogued

After the war Charles spent seven months in Persia on loan to the U.S. Military Mission and Foreign Claims Investigation Team as an interpreter. Upon his return to America he took the coins to the University of Chicago where they were catalogued. Duplicates were contributed to the school.

The Persian coins date from 300 B. C. to the end of the Persian Empire. The Arabian series starts 80 years after the coming of Mohammed and end about in 1200 A.D. The metal is mainly silver with some copper discs. A few have a hole pierced near the edge and had been used as adornments. None of the coins are of gold as this metal is still considered very precious by the natives.

Charles came to Sandia Corporation in 1949 and is a machinist.

#### A Dayton, Ohio, manufacturer celebrating 50 years of service to industry has been praised by Sandia Corporation for solving a particularly knotty engineering prob-

tubes.

techniques.

Demolition of temporary build-

panels.

a temporary fenced corridor has been constructed to permit contractor access to the site from the north side of the Tech Area. There are adequate gates in the fences to allow continuation of near-normal traffic in the Tech

# Montana State College from 1944-Service Awards----**FIVE-YEAR PINS** TWO-YEAR CERTIFICATES Sept. 21-27 Sept. 21-27 Homer R. Messenger 2721, Paul L. Stewart 2532, Don Williams, Jr. 1610, Robert F. Masak 2720, Robert R. Harnar 5522, Candido C. Mon-tano 2351.

Robert J. Mueller 7412, Louise Major 2613, B. F. Brooking 7224, Herrmann G. Page 1611, Andrew Moller 2419, Phillip H. Park 7412, and Byrd C. McKay 2124.

Sept. 28-Oct. 4

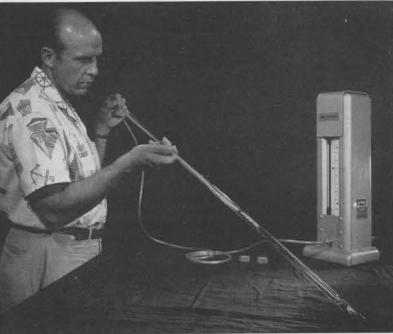
K. S. Spoon 2300, Robert E. Whitford 1621, John A. McPhate 5521, Arthur J. Clark, Jr. 1470, Don L. Rost 3171, Lucile S. Marcrum 7121, C. W. Young, Jr. 5211, William L. Caffee 2124, Cora A. Callender 5241.

Leonard L. Motichko 2234, Roy D. Nix 2232, Ray C. Smelich 2331, Lee G. Adam 2221, Johnnie B. Duran 1621, Oscar H. Berlier 2232, Reyes Coriz 2418, William D. Ingram 5133. Asa C. Wilson 1282, Robert E. Pritchett 5232, Laddie R. Sladek 2351, M. J. Contreras 2351, and Edward W. Swanson 6021.

Sept. 21-27
Jane B. Dancy 2461, John F. Dankworth 1412, V. T. Strascina 5142, Joseph W. Benfer 2733, George L. Mayne 1463, Betty J. Carroll 7225, Aurora L. Gonzales 2112, Ruth M. McAdams 7225, Hester E. Stiver 2472.
Marvin E. Barnett 5215, Leonard M. Clausen 7123, Cleo A. Martin 2234, Louis E. Erne 2462, Aubrey B. Miller 1244, David W. Danielson 5214, W. D. Stoppkotte 1422, George W. Martin, Jr. 7411.
Clorinda L. Montoya 7225, Robert E. Pedersen 2122, Sherry L. Smith 2723, Billy L. Easter 7225, Mary E. Fischer 7225, George L. French 7412, Robert D. House 2122, and Carthel D. Henry 7232.

Sept. 28-Oct. 4

Sept. 28-Oct. 4 Sept. 26-UC. 4
Lyle Diamond 2152, B. R. Lorenzen 2443,
Larry E. Horner 5521, Lavina B. Kite 5252,
James R. Collier 5523, Harry P. Wheeler 1612,
George R. Peterson 1244, Eleanor J. Maxwell
2333, Kathryn H. Wright 7225, Leeland H.
Hogue 1433, Calvin L. Jackson 2452, and
Darrell A. Joyner 2122.



AIR GAGING technique developed for Sandia Corporation is demonstrated here by Kenneth R. Dickerson, staff assistant in the Lengths Measurement Section of the Physical and Electrical Standards Department. The Sheffield Corporation, Dayton, Ohio, developed the "plunjet" shown in the tube which measures the tube's inside diameter to an accuracy of 25 microinches.

# Law Sets Oct. 6 Registration Deadline for General Election

Sandia Corporation employees and their families are being reminded again this election year that it is necessary to register before they can vote in the general election Nov. 6.

To vote in New Mexico a citizen must be a resident of the state for one year, a resident of the county 90 days and the precinct 30 days prior to the election date.

Eligible individuals may register until Oct. 6. However, it is recommended that in order to miss the last minute rush registration be accomplished by Sept. 29.

Voters who have moved since the last election are reminded that they should change their registration. Questions concerning registration may be referred to the Bernalillo County Clerk's office. Telephone number of the office is Alb. 7-0111, ext. 33.

### Housing Area Voters

Residents of the AEC housing area on Sandia Base may vote this year if they meet registration recuirements. That portion of Sandia Base was retroceded to New Mexico State jurisdiction two years ago. The Wherry Housing project and the military housing are still under exclusive Federal jurisdiction and those residents are not eligible to vote in New Mexico. They may vote by absentee ballot if they maintain voting eligibility in another state.

Residents living in the AEC housing area west of Pennsylvania Avenue are within the city limits of Albuquerque and may vote in city elections as well as general. Other AEC housing area residents are outside the city limits and therefore are not eligible to vote in municipal elections, but only in general elections held every two years to elect state and national officials.

## Livermore Voters

Sandians at Livermore are out of luck this time unless they have been in California long enough to qualify for voting eligibility there. New Mexico has no absentee ballot provision.

Voters may register in the office of the County Clerk in the Bernalillo County Court House. Several other registration locations have been set up by the two major political parties to make registration easier for local voters.

Following are the locations:

319 West Gold, 8 a.m. to 5 p.m., Monday through Friday and 9 a.m. to 12 Saturdays.

114 San Pedro Southeast, 12 noon to 8 p.m. Monday through Friday and 9 a.m. to 5 p.m. Saturdays.

Registration is open for one ad-

n Red Cross First Aid, Training

The advanced class will meet

Wednesdays from 7 to 9 p.m. for

six weeks. The class is open to any-

one who has completed the pre-

liminary First Aid Course and will

offer valuable advanced life-saving

information. Those eligible are

Division, 3123, announces.

urged to attend.

Registration facilities will be set up at the following locations each Friday from 3:30 to 6 p.m.:

Bank of New Mexico East Central Branch.

First National Bank, East Central Branch and Main Office downtown.

Albuquerque National Bank, East Central Branch, North Fourth Street Branch, and Main Office downtown.

Piggly Wiggly Store, Sunset and Five Points Rd. SW, will have registration booths open each Wednesday from 3 to 6 p.m.

The League of Women Voters will have a registration booth at the New Mexico State Fair.

# R. P. Noble Tells of Electronic Packaging At Ohio Symposium

R. P. Noble, 1462-2, will give a paper entitled "A Modern Concept of Electronic Packaging" at an Industrial Electronics Symposium in Cleveland, Ohio, Sept. 24-25.

The paper shows the relationship between human engineering, design approach and engineering management. It discusses the application of electronic packaging with printed circuit design. Mr. Noble will illustrate his talk with slides showing finished products.



LIVERMORE BOUND—The population of Livermore increased by nine when Leo Gutierrez, his wife and seven children arrived recently. The family is shown here boarding a plane in Albuquerque to make the trip. Leo assumes duties as supervisor of Project Division 1272 in Engineering Dept. 1270.

A Bit of History

# Dick Marmon Recalls Grandfather's Tales of Days as Laguna Governor

The Laguna Indian pueblo, 40 miles west of Albuquerque, two days ago observed its yearly fiesta with accompanying dances and other customs. To Dick Marmon, 2721-1, the event fell in the category of family tradition.

# First White Governor

Dick's grandfather was governor of Laguna in 1883 and is believed to have been the first white man elected to such an honorary office. Members of the Marmon family continue to take an active part in Pueblo affairs.

The main recollection Dick has of his grandfather, Robert G. Marmon, was as an old man spinning tales about the days when Geronimo and his Apaches raided the pueblos nestled along the Rio Grande or of his early days as a teacher.

# Rio Grande Flood

Robert Marmon left his home in Ohio at the age of 24 and traveled West to join his brother Walter who was teaching school at Laguna Pueblo. The stage line from Santa

One of the beginners classes will

7 to 9 p.m., a total of 18 hours to complete the course. The other be-

ginners class will meet Tuesdays

from 5 to 7 p.m. also for 18 hours.

All classes will start as soon as

sufficient enrollment is indicated.

of the three classes is urged to

complete the following enrollment

blank and return it to Staff Train-

ing and Education Division, 3123.

Anyone desiring to enroll in any

Fe arrived at the Priest Ranch Stage Station about two miles east of Albuquerque's Old Town Plaza.

Marmon wrote in his memoirs, "The stage could not proceed on to Albuquerque because flood waters had isolated the town." They had to boat across a channel 200 yards wide where First St. is today.

Two days later his brother arrived from Laguna. Robert wrote: "We walked to the Rio Grande and waded to where a boat could cross the main channel. Big waves were coming up and the boatman said he didn't think he could get across, as it was very bad."

Two men from the opposite shore came across in a small boat to help. With much struggling and praying the ferry boat finally made it, although the strong current carried them a half-mile below the normal landing. The rest of the trip was on horseback.

# Apache Uprising

At Laguna Robert stayed with his brother in a one-room adobe hut which he described as having "no chairs, no bed, nothing but a frying pan and a bake oven and a fireplace, coffee pot and some tin plates." Sleeping on a Navajo blanket on the floor was a far cry from his soft bed in Ohio.

A few months later Robert was teaching both children and solemn-faced braves at Laguna and in 1872 he was appointed to the school just organized at Acoma Pueblo.

During the Apache uprising in 1885 Robert served as captain of Troop I of the First New Mexico Cavalry Regiment, made up entirely of Laguna Indians.

Both brothers married Laguna girls and continued to promote education and progress, take part in council meetings and they introduced voting.

Robert died in 1933 but his widow, Mrs. Marie Marmon, still lives in Laguna.

His grandson, Dick, was born in Laguna Pueblo and has worked for Sandia Corporation eight years, mainly in inspection. He married a welfare worker from St. Louis, whom he met when she visited Laguna, and they have four children.



"HELLO, can you hear me" says Theresa Cook to little Patty Ann, who lost 75 per cent of her hearing at the age of 6 months. Patty, the daughter of Peter J. Cook, 5532, has been learning to hear at the United Fund supported New Mexico Hearing Aid Society.

# Hearing Society Helped Bring World Of Sound to Sandia Employee's Child

Editor's Note: In replying to the question below the Sandia Lab News staff discusses a little known, but important, agency of the Bernalillo County Community Chest and how it has helped the child of a Sandia Corporation employee.

Q. I recently read a story in a national magazine about the hard-ships borne by deaf children in learning to speak and understand the spoken word. Is there an agency in Albuquerque, supported by the United Fund, where training is given to the hard of hearing?

A. Yes there is. The New Mexico Hearing Society, 1012 Second St. NW, is supported by the United Fund. Here a special class has been set up for pre-school youngsters where they are given vocabulary-building training, courses in pronunciation and lip reading. In addition, they are taught the elementary subjects children with normal hearing would learn in the early grades. Other courses are available to adults.

The training is given free of charge to the children of parents with limited incomes, while those who can afford to pay are charged \$1 a lesson for the two lesson a week course.

Little six-year-old Patty Ann Cook, daughter of P. J. Cook, 5532, has recently completed two years at the Society, attending the course twice a week during that period.
"Patty had a vocabulary of only
six words or so before she started
going to the Society," her father
says, "and now she can pronounce
many words in coherent sentences."

It wasn't until Patty was three years old that her parents realized that she was deaf. Doctors told the Cooks that the little girl probably lost 75 per cent of her hearing after being stricken with pneumonic at the age of six months.

monia at the age of six months.

Patty enrolled at the Society at the age of four, after spending a year at the University of New Mexico's Speech Clinic. Using a microphone and headset at the Society to amplify sound, she was able to hear the voice of the instructor and the other pupils, as well as her own voice, with little difficulty.

"With more money contributed through the United Fund, the Society could expand its facilities and extend to others the wonderful training that Patty and her classmates have received," Mr. Cook said.

# ENROLLMENT BLANK Red Cross First Aid Training Course

**Beginning And Advanced Red Cross** 

vanced and two beginning classes meet Mondays and Thursdays from

First Aid Classes Being Scheduled

Name
(please print)
Organization Extension
I prefer to enroll in:
Monday and Thursday, 7 p.m. (Beginners)
Tuesday, 7 p.m. (Beginners)
Wednesday, 7 p.m. (Advanced)



SPEEDING MICRO-MIDGETS-Dean Hitchens, 1233, driving his home-built pint sized racer (right) bumps Willy Freed, 7241-1, at recent Micro-Midgets races at the Ice Arena. The races were sponsored by the Albuquerque Micro-Midget Club, Lowell Sharp, 7242, president. The event drew 22 entries, many from out of state. Only Sandian to place in the races was Richard E. Bohannon, 1611-5, who won the consolation heat of the night's races.



AIMING for another first place like the blue ribbon he won in the State Archery tournament recently, Q. F. Simon, 7412-1, will be in Santa Fe during the weekend competing in an Invitational Tournament sponsored by the Santa Fe Archery Club.

# Q. F. 'Robin Hood' Simon Wins First Honors in State Archery Tourney

After taking first place in the New Mexico state field archery tournament during the Labor Day holidays, Q. F. "Si" Simon will be in Santa Fe this week end competing in an Invitational archery tournament sponsored by the Santa Fe Archery Club. He is Supervisor of Drafting Section 7412-1.

Si was top man in the state in the expert bowman division. He shot a total score of 1219 points to win the honor. The state tournament drew more than 100 archers to compete on the Cedars range, 20 miles east of Albuquerque on Highway 10.

Si became interested in archery just a year ago. "It's a stimu-lating hobby and sport," he says, "and fine for the whole family." His wife, Helen, won second place in the state women's archers division.



YOU CAN PLACE THIS STENOGRAPHER! Sandia Corporation needs 75 qualified stenographers and typists to fill important positions. If you know someone who is qualified, contact Employee Referral Program, George Elliott, ext. 20151, Sandia Base.

# 4100 Softball Team **Voted Best Sportsmen** By League Umpires

The 4100 team was voted the Sandia Employees Softball Association Sportsmanship Award recently by umpires who officiated during the season's play. Co-captains Jack Renaud and Dan Held accepted the large trophy presented to the team. From a field of 13 teams, the 4100 team finished ninth with a 7 won, 8 lost record.

Team members include Bill Lew, George Horne, Jr., Dan Hinman. Bob Guerrero, Fred Martinez, Bill Colburne, Frank Lucero, Pat De-Domenico, Charles Weld, and Gil Stapleton.

# Golf Champs

Team 2 of A Flight defeated Team 8 of B Flight recently to win the championship of the Sandia Employees Golf Associa-

Members of the championship team are C. C. Fornero, 7329, Bob Crabb, 5242, and Bob Angus, 2335. Members of Team 8 of B Flight include Howard Lindell, 5533, Lou Guintard, 5533, and Dick Clark.

# Industrial Engineers Will See 2 Films at Meeting on Sept. 14

The American Institute of Industrial Engineers will have a dinner meeting Monday, Sept. 24, at 7 a.m. at the Fez Club, 809 Copper Ave. NW, Al Kaping, 2614, secretary, announces.

Two movies "Ordnance Day at Aberdeen Proving Ground" and "Aboard the USS Hancock in the Pacific" will be shown at the meeting.

Cost of the dinner will be \$2.50 and reservations may be made by calling Kaping or Vern Wehby, ext. 48252 or 34244.

# Social Hour, Chuckwagon Dinner at Club Tomorrow; 'Satchmo' Here Soon

A chuckwagon dinner is the feature attraction at the Coronado Club tomorrow night beginning at 6:30 p.m.

Preceding the dinner will be a 5 p.m. Social Hour. Tommy Kelly and his orchestra will provide the music during Social Hour while Al Hamilton and his orchestra will play for dancing from 9 to 1.

Admission to the combined activity is \$2.65 for members and \$3.75 for guests. Western wear is the suggested attire for the evening.

The great "Satchmo," also known as Louis Armstrong, will appear at the club Oct. 14. Dancing will begin at 8 p.m. and continue through midnight. Advance reservations are in order, with tickets going on sale at the club Sept. 28. Admission for members is \$2.50, \$3.50 for guests.

"Sally and St. Anne" is the title of the movie to be shown during Family Night at the club Sept. 23. The film, which will begin at 6:30 p.m., stars Ann Blythe and Edwin Gwenn. Cokes and popcorn will be served.

# SHOPPING CENTER

RIDERS from vicinity of 3500 block San Mateo. Jacobs, ext. 2-9163. RIDE from 1024 Alvarado SE to Bldg. 800. Hamilton, ext. 35236.

RIDE or join car pool from 500 8th NW to gate 4. Ingram, Alb. 7-8683.

RIDE or join car pool from vicinity Coal & Harvard to Bldg. 802. Richardson, ext. 36233.

HOUSING LISTINGS. One, two, or three bedroom houses & apts. Employee Ser-vices, Ext. 29157.

SPINET PIANO, BLONDE. Weber, Alb.

RIDE or join car pool from Columbia and Garfield SE to Bldg. 894. Walker, Alb. 3-4161.

TRICYCLE, child's 20". Brown, Alb. 9-2510.

RIDERS, vicinity of Isleta Highway, La Vega Rd., Riverside and Bridge. Mary Guajardo, Alb. 3-7018 after 6 p.m.

BICYCLE, girl's 20 to 24 in. Hill, Alb 9-3210.

CAR POOL, join or start Snow Heights No. 1 to Bldg. 880. Baby sitting at our home. Stixrud, Alb. 9-0674.

CAR POOL from vicinity of 4100 Lomas NE to Building 802. Heames, Alb. 5-2048.

HOMES for 1 male and 1 female kittens housebroken, 7 wks. old.

Rector, ext. 43185.

COLLIE DOG or pup. Will give it a good home in country. Cacy, Alb. 4-5543.

# FOR RENT

3 BEDROOMS, furnished, \$115 a month, water & garbage paid. One year lease. 1102 Betts NE, Princess Jeanne Park.

WOMEN'S DORMITORY ROOMS, furnished: kitchen, laundry facilities; linen; maid service; television; walking distance to work. \$45/mo. Base Housing Office,

5 RM. HOUSE, unfurnished. NE Heights location. Terms: 1 yr. lease at \$80 per mo. Water & garbage paid. Cultreri, Alb.

# LOST AND FOUND

LOST, KNITTING, almost completed ma-roon sock, vicinity Sandia Corp. Hayden, ext. 3-4133.

LOST, glasses in black case; billfold, brown, carved; wallet, brn. w/Sandia ID; glasses, sun; notebook, 3x5 black; cuff link, gold fish; manilla envelope, marked Dastrom Pacific; glasses, ladies; earring, white flower; check, signed Sampson. Lost and Found, ext. 26149.

CLASSIFIED

**ADVERTISING** Deadline: Friday noon prior to week of publication.

# RULES

- 1. Limit: 20 words
- 2. One ad per issue per person 3. Must be submitted in writing
- 4. Use home telephone numbers
- 5. For Sandia Corporation and AEC employees only
- 6. No commercial ads, please

# Next Deadline: Noon, Sept. 28

# FOR SALE

TROPICAL FISH TANKS (4) 9x9x8 in., complete w/lights and filters. \$3.50 each. '41 Ford, \$195. Glass, Alb. 6-2485.

BEDROOM SET, poster bed, triple mirror, vanity dresser, chest, \$35. Rushing, Alb. 6-6046.

ONE BEDROOM HOUSE, furnished. NE heights near Sandia Base, hardwood floors, \$6500 with terms. Stephenson, Alb. 5-9822.

AUTOMATIC FLOOR FURNACE, "Payne" 65,000 BTU, approx. 3x3 floor grille, automatic controls, \$50. Martin, Alb. 5,8030

MACHINIST TOOLS, inside, outside and depth micrometers, K & E slide rule, Dietzen drawing set. Friend, Alb. 9-1679.

'49 KAISER, 4-door sedan, R&H, sun visor, good body, \$100. Shew, ext. 32234. '53 MOTORCYCLE, James, just overhauled, \$75. Gibbs, Alb. 5-6627.

MALE BEAGLE PUP, registered, has shots, \$35. Universal travel iron, \$5. Hogue, 1435 Espejo NE, Alb. 9–1807.

REFRIGERATOR, 9 cu. ft., \$50 or best of-fer. Willett, Alb. 7-8651.

STEEL WINDOW, complete w/glass—50x70", 4 panes wide and 4 panes high, \$30. Armstrong, Alb. 6-6555. HALLICRAFTERS \$40-A receiver. ARC-5 Command transmitter, 40 meter band. Whisler, Alb. 5-6864.

TARGET PISTOL, 22 automatic, "supermatic", \$55. G. E. portable automatic dish washer, \$50. House, Alb. 5-2646.

'56 FORD, 8 passenger Country Sedan, R&H, tinted glass, Fordomatic. Bury, Alb. 9-3953 after 5.

DOG HOUSE, approx. 1200 sq. in. floor space. Porter, 2801 Parsifal NE, Alb.

'51 BUICK Special, 4 door, new paint and recently overhauled, \$300. Sodja, Alb. 5-1930 after 5.

CHEST OF DRAWERS, Kroll, maple finish, \$20. Hughes, 9921 Leyendecker NE, Alb. 9-0135.

ROLL-AWAY BED w/innerspring mattress, full size, \$20. Gym-Dandy swing set, 2 swings & glider, \$12. Baylor, Alb. 9-3915.

TIRE & TUBE, 8.00x15, \$6. Tire w/full recap, 6.40x15, \$10, 4 tubes, \$1 each. Lopez, Alb. 3-8550.

SHASTA TRAILER, \$2400 equity in '55, \$200 and take over payments. Elsed, Alb. 9-1872 or Alb. 6-2109.

BABY BUGGY, collapsible type, \$18. Stroller, \$10. Brown, Alb. 9-2510.

MOTORCYCLE JACKET, leather, size 38, \$7.50. Rexo Print Dryer, takes eight 8x10 prints, \$18.50. Heath, Alb. 5-5418. STATION WAGON, '41 Ford, R&H, \$150. Wood, 3123 Monroe NE, Alb. 4-0342.

'48 FORD 4-door custom sedan, R&H, new battery, clutch and paint job, \$200. Seelbach, 2008 Hoffman Dr. NE, Alb.

2 BR. HOME, stucco, 15x30 screened patio, lawn. trees, near Lady of Fatima, \$2,500 down. Dufty Alb. 6-1886 .

LAWN MOWER w/basket reel type, new, \$18. Sanders, Alb. 6-8354.

KITCHEN TABLE, yellow, chome legs w/2 yellow padded benches, \$12. Dusek, Alb. 6-9388 after 5.

5 BUICK RIVIERA, sale or trade, 12 miles, \$2395. Liguori, Alb. 6-3613.

CRIB, white w/waterproof mattress, \$25. (Miscellaneous bedding included, if desired), portable Easy Whirldry washer, \$15. Renn, Alb. 9-2919.

PISTOL, automatic .22, Hi-Standard, \$28. Ruger w/holster, \$28, Want old guns. Smitha, Alb. 9-1096.

SHOTGUN, Winchester mod. 12, 20 gauge, matted rib barrel, \$70. .380 Automatic, \$30. Ammunition included. Crain, Alb. 9-1509.

AUTOMATIC WASHER, \$50. Deer rifles, (Savage-model 99F 308, Winchester mod. 70, scope 30-06, Mannlicker, scope 257). Wehmhoff, Alb. 5-9442.

TABLE SAW, 8 in., \$25. Laskar, Alb. 9-1024.

WOODEN TABLE and four chairs, white enameled. Firetruck, 20 in. bicycle w/guard wheels. Shoemaker, Alb. 5-8820.

DRAPES, floor length, light grey back-ground, 5,7,9 foot widths, \$35. Boy's 26" bike, new tires, \$20. Dove, Alb.

REFRIGERATOR, G.E., apartment size; gas stove, golf clubs, folding cot, parakeet w/cage. Make offer. Simpson, Alb. 9-2266.

ELLIS-LAWYER dividing head, complete. Wiesch, Alb. 6-7236.

HOUSE and 1.46 acres, North Valley small block stucco, modern home, or will trade equity for acreage. Meek, Alb. 2-1185.

2 BR. HOUSE in NE Heights, near school and shopping center. Terms to suit buyer. Springer, Alb. 9-5490.

2 BR. HOUSE, furnished, attached garage, \$500 down, \$60 per month. 226 Texas NE. Grey, Alb. 5-3470.

'48 MERCURY 4-dr. sedan, R&H, spot light, good tires, safety tubes, \$250. McNeely, Alb. 6-2553.

REFRIGERATOR, Westinghouse, 6 cu. ft., \$80. Gas range, \$40. Will trade for bunk beds. Roy, Alb. 5-7427.

JEEP PICKUP, 1954 4 wd., HTR, 20,000 miles, \$850. Church, Alb. 3-2668.

DELTA WORKSHOP, \$165. Chavez, 1715 Marble NW, Alb. 2-7060.

3 BEDROOM HOUSE, 1½ baths, carpets, venetian blinds, landscaped, \$10,500. Low down payment, G.l., or conventional. Wheeler, Alb. 6-6230.

'52 STUDEBAKER CHAMPION, 2-dr. To settle estate. Bids accepted. Warren, Alb. 5-4808.

300 SAVAGE MODEL R. Robinette, Alb. 9-1959.

M. W. SHALLOW WELL PUMP, w/35 ft. of 11/4 in. well casing. Martinez, ext.

HOUSE, newly redecorated, 2 br., near Base, wall, lawn front and back, car-port, \$7,950, reasonable down payment.

UNM season football ticket, 40-yard line seat, 5 games \$10. LeCompte, ext. 8-3227.

CRIB, mattress, \$5. Tire, 6.00-16, \$10. two bedroom house, 836 Maderia SE. Black, Alb. 5-8326.

FORD CONVERTIBLE, \$995 or \$200 ake over payments. Ford & Mercury

RADIO-PHONO TV CONSOLE, 17 in. TV, 3-speed phono, \$175. Harrington, Alb. 4-0845 after 6.

GAS RANGE, Universal, 42", clean, \$40. Love seat size folding double bed, \$30. Wakeland, Alb. 5-4255.

SHOTGUN, model 97, 12 ga. w/kick pad, \$55. White, Alb. 4-0165.

ELECTRIC RANGE, 30" Kelvinator, \$100. German P-38 pistol, \$25. Galbreath, Alb. 4-4306.

WOOL RUG & pad, 8x12, taupe color, Muz-zey, Alb. 6-4930.

FRAME TRAILOR, 2-wheel, steel, \$15. Briggs and Stratton 1 H.P. engine, \$9. Anderson, Alb. 9-4518.

BABY CRIB, \$10. Westinghouse roaster w/cabinet, \$25. Youth bed, \$25. Car roof basket, \$5. Kavanaugh, Alb. 6-3011.

take over payments. Ford & Mercury dual intake manifold, two carb., super-charger. Winn, Alb. 4-1302.

KODAK 35 w/coupled range-finder, case, Weston meter, filter holder, lens shade, \$40. Boyes, Ext. 24139.

CLOTHES DRYER, Frigidaire. Blond ma-hogany bedroom suite, 2-piece couch. Westfall, Alb. 9-2768. RIFLE, Winchester, 30-30 cal., lever action, \$55. Reilly, Alb. 4-6703.

'51 KAISER, R&H, good tires, clean, \$190. Refrigerator, 8.5', \$60. Portable cooler, \$14. Sofa bed, \$22. Yorgiadis, Alb. 6-4937 after Sept. 24.

TELEVISION, 17", table model, \$35. Reimholz, Alb. 9-5107.

LAWN MOWER, 18", 1955 English make, \$11. Toft, Alb. 4-5166.

DEEP FREEZE, 1956, 12.5 cu. ft. Leonard upright, \$45 cash, balance 23 payments of \$16.65. Wheeler, Alb. 2-4972.

'52 STUDEBAKER V-8, R&H and O.D., \$485. Gilbert, Alb. 9-1619 after 5. WEIMARANER PUPS, reasonable. 30-06 Winchester with scope and case. Ewing, 1303 Quincey NE, Alb. 5-1958.

SHOTGUN, Browning 12 ga. Superposed Grade I Vent. Rib, bored imp. cyl. & mod., \$200 cash, terms, trade. Ross, Alb. 9-1526.

# WANTED

SOLAR ENLARGER, size 21/4×33/4, 4.5 lens.
Herrera, Alb. 5-3612 after 5.

RIDE from corner Coal and Walter SE to vicinity Personnel Parking Lot. Leasure. vicinity Personnel Parking Lot. Leasure, Alb. 2-7027 after 5.

WILL CARE for child, age 3 to 5, days in my home. Apodaca, 9305 Alta Monte NE, Alb. 9-1628.

RIDE from Constitution & Carlisle Blvd. NE to Personnel Building. Myers, Ext. 9-4287.

AQUARIUM, 5 or 10 gallon. Barber, Alb.

PIANO, any type. Schorr, Alb. 5-7234. RIDERS (2), to form car pool from Kirtland Addition to South Gate Parking lot. Ortiz, Ext. 3-3132.

RIDE from 2746 Graceland Drive NE to Building 880. Cox, Alb. 5-5076.

RIDE from Silver and University to Bldg. 802. E. Willis, Alb. 3-4260 after 5.

RIDE from Coal and 6th to Bldg. 802. A. Rivera, Alb. 3-6901 after 5. RIDE or join car pool from vicinity of 437 Maple NE to Bldg. 880. Mrs. Aaron, Alb.

RIDE from vicinity of San Pedro and Aztec to Gate 7. Matlock, Alb. 5-0109.

DRIVER to join car pool from vicinity of Five Points and Bridge SW or Goff and Beverly SW to Gate 7. Lopez, Alb. 3-8550.

RIDE from corner Garfield and Yale to 892 or 880 parking lot. Lynn, Alb. 3-1935.

LOST in vicinity of 2700 Espanola NE, a black, 5 months old, 50 lb. Doberman puppy named Patcy. Friend, Alb. 9-1679.

# Sandia Movie Studio Records Scientific Frontiers

If all the film processed by the Motion Picture Division, 2465, since February, 1948, was unwound from one giant reel, it would stretch from Albuquerque to New York City and extend another 100 miles across Long Island and into the Atlantic Ocean.

Jim Karo, Division Supervisor, made this estimate recently as the West Lab "flicker factory" processed its 10 millionth foot of film.

Ninety per cent of the film was processed for the Field Test organization, 5200, and includes film from the test sites and test operations. These film records have contributed greatly to the development of nuclear weapons.

Training and instructional films account for the other 10 per cent of the work of the division. Jim and his staff of four average one training film per month. These

movies are filmed under the direction of the Weaponry Training Department, 7110, headed by I. M. Moore. E. W. Kersten and C. C. McDonald usually are the technical directors for a training film for this department and prepare the shooting script.

### Studio In Bldg. 808

Banks of floodlights, light meters, camera dollies and wiring fill the Movie Division's studio in Bldg. 808. Bob Matthews and Wayne Hancock handle the camera work in the studio and on various field trips.

All the processing of film is done in a laboratory located in the buildings now occupied by Albuquerque Operations Office of the AEC. It is equipped with both color and black and white automatic developing machines. These machines, operated by Gerald Cobb, develop about 20 feet of

film per minute. The exposed reel is inserted at the darkroom end of the developing machine and it comes out the other end ready to be projected.

The film moves automatically through 17 different chemical and light processes in the machine. Its 100-gallon chemical tanks have metering devices that control the flow of replenishing solution to maintain constant chemical strength in the developers.

In the past year, Jim said, the processing work has changed from predominately black and white to almost exclusively color processing. Field Test has found color superior to black and white in most of their tests because there is less grain and distortion in the final print and the colors themselves tell a story.

After the film has been processed, it has to be edited and work prints made. E. A. "Skip" Baca does the editing and runs the printing machine.

#### Originals Are Stored

All original film is stored in a vault to preserve an historical record of the work and to have it available in case the duplicates are damaged or destroyed.

After the editing process the film is ready for a sound track. The West Lab is completely equipped with recorders, sound studio, mikes, turntables and audio equipment. As the film is projected onto a screen in the sound-proof studio, Jim sits at the master console and works the dials that control frequency compensation and volume level. This console controls the volume of the narration, background music and sound effects.

Jim directs the staff of professionals whose combined experience in motion picture work adds up to an impressive total. Jim is a former photo officer for the Manhattan Engineering District's special projects laboratory at Wendover, Utah. He was stationed at Kirtland and Sandia Base as a photographer while in the Air Force. He came to work for Sandia Laboratory in 1946.

Skip Baca was a commercial photographer before coming to Sandia in 1948. He owned his own studio in Las Vegas, N.M., and was an Air Force photographer during World War II.

Bob Matthews owned his own photography studio in Pagosa Springs, Colo., before coming to Sandia in 1948. He was a commercial photographer for Consolidated Aircraft in San Diego, Calif., prior to that time.

Wayne Hancock started at Sandia in 1948 in the Documents Department, 2460. He operated an Ozalid machine before transferring to the Movie Section. Gerald Cobb began work for the Corporation in 1950 also in the Documents Department processing microfilm before transferring to the Movie Division.



TECHNICAL DIRECTORS for a training film, E. W. Kersten, left, and C. C. McDonald, both of 7113, discuss the shooting script with cameraman Bob Matthews. The camera is aimed at a title slide, "Sandia Corporation Presents" which begins all films.



MIXING CHEMICALS is the job of Gerald Cobb. The Movie Division uses developing chemicals in vast quantities. The mixing is done with the care that goes into a recipe for angel food cake.



DUPLICATING the original print after editing, Skip Baca adjusts the exposure control on the printing machine. Since the original film had variations in exposure, the duplicate print has to receive the same exposure or corrected exposure. With the printer, it is possible for Skip to change color density and tone. Both the exposed film and the raw film move through the printer at the same time.



PROJECTION BOOTH—Here Jim Karo, Supervisor of the Motion Picture Division, changes film in a 35 mm projector in the laboratory projection booth. The projector is the same type used in commercial movie houses. It projects onto a screen in the sound studio where the sound track is recorded. Narration, background music, and sound effects are synchonized to the action of the film.



LIGHT EXPOSURE is read by Wayne Hancock, left, as Bob Matthews sets the reading on the movie camera. The Motion Picture Division's studio in Bldg. 808 is equipped with floodlights, overhead spotlights and auxiliary lights. The camera rests on a wheeled dolly that allows smooth following of moving subjects.