

# AELMR Panel Has Vital Role in Atomic Energy Program

On August 5, 6, and 7, the Atomic Energy Labor-Management Relations Panel met in regard to the re-negotiation of the existing Agreements. The following article outlines the history of the Panel, and provides information on its membership and function.

During World War II, at the request of the highest levels of government on the grounds of the extreme secrecy of the Manhattan Engineer District projects, the AFL and the CIO agreed to refrain from organizing activities

at MED research and production facilities. In March 1946, the Secretary of War informed the National Labor Relations Board that it might certify bargaining units at Oak Ridge, Tenn.

Both AFL and CIO units won

representation rights at Oak Ridge. In March 1948, there was a threat of a strike at Oak Ridge in a dispute between Carbide & Carbon Chemical Corp. and the Atomic Trades and Labor Council. President Truman invoked the emergency injunction provisions of the Labor Management Relations Act (Taft-Hartley).

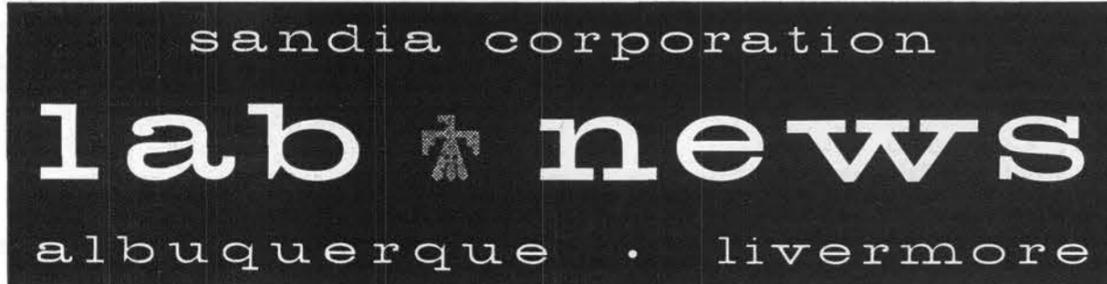
Although the parties subsequently reached agreement dur-

ing the injunction period, President Truman announced his intention to establish a commission to study collective bargaining methods in atomic energy installations. In September 1948, he appointed a Commission on Labor Relations in Atomic Energy Installations, with William H. Davis as Chairman.

In 1949, the President's Commission issued its report in which it recommended that the Atomic En-

ergy Commission establish a Labor Relations Panel of impartial members appointed by the President from nominations submitted to him by the Commission, and that the Panel be empowered to take jurisdiction of any management-labor dispute which collective bargaining and the normal processes of conciliation have failed to resolve and which threatens to interfere with

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## M. K. Linn Heads UN Week Committee

Max K. Linn, manager of Technical Information Department 3420, has been named Albuquerque chairman of the UN Week Committee of the American Association for the United Nations.

Yearly, the Association sponsors a week's observation of the founding of the United Nations. The commemorative week includes the date of the UN Charter, Oct. 24.

## Construction Starts on Livermore Laboratory Bldg. 912 Addition

Work on the new addition to Bldg. 912 at Livermore Laboratory is scheduled to be completed next May, it has been announced by Plant Engineering 8221.

The contract for the construction work was awarded by the Atomic Energy Commission to H. Halvorson, Inc., of Palo Alto, Calif. Halvorson's bid of approximately \$660,000 for the 23,600-sq. ft. addition was the lowest of four received. The contractor began work on the project July 24.

When completed, the two-story wing will principally provide additional engineering office and laboratory space. It will be built of reinforced concrete frame construction with masonry curtain walls.

Planning Section 8221-1, Plant Engineering Division, coordinated the design effort with Plant Engineering Department 4540. Working on the project were J. G. Harter, J. W. Smith, and R. E. Wilhite, all of 8221-1 and V. E. Kerr, V. F. Arroya, C. E. Champe, all of 4543.



NOON-HOUR SKETCHING by Claire Haut (7513) produced portraits of her fellow employees, in background. She holds a watercolor completed recently; another lies on the table before her. Clair began her study of art, at age 12, at the Davenport (Iowa) Art Gallery, later studied at the American Academy of Art and at the "New Bauhaus" under Laslo Moholey-Nagy. Today, art has become a major avocation for her.

## Sandia employees are candidates

# To Elect Metropolitan Flood Control Authority Aug. 27

Albuquerque property owners will vote to select Board Members of the Metropolitan Arroyo Flood Control Authority Aug. 27. Among the candidates for the Board are seven Sandia Laboratory employees.

Dennis F. Baca (7523-1) has been at Sandia Laboratory 13 years. He handles administration of the Department 7520 laboratory. Previously he was engaged in research projects at the University of New Mexico and New Mexico Institute of Technology. He attended Highlands University and UNM.

Thomas M. Bozone, supervisor of Systems Planning Section B, 7521-2, has been at Sandia since December 1953, engaged in Quality Assurance activities. He earned his BS degree in electrical engineering from Mississippi State College in 1951.

Leo A. Dunn, supervisor of Project Division 1511, has been a mechanical engineer in Sandia Laboratory project development groups since April 1948. He had previously worked for the U. S. Navy Bureau of Ordnance. He graduated from Catholic University in Washington, D.C., in 1940.

Frank J. Feery, supervisor of Component Evaluation Section B, 7523-2, has been at Sandia Laboratory since October 1948. He has been in Quality Assurance except for one year when he participated in full scale testing. Prior to joining Sandia he was a research assistant at Johns Hopkins

University in the Systems Research Laboratory.

Robert F. Gentzler is a meteorologist in Engineering and Meteorology Section 7423-1. He has been at Sandia Laboratory since July 1960. Previously he spent 13 years in the Air Force as a meteorologist and pilot. He earned his BS from the University of California, Los Angeles, in 1948 and his MS from Massachusetts Institute of Technology in 1953.

James Ketner, supervisor of Quality Assurance Reports Section 7511-2, has been at Sandia since October 1953. Previously, he was assistant superintendent of pumping systems with the Metropolitan Water District of Southern California. He graduated with EE and ME majors from Stanford University in 1932.

W. C. Scrivner, Director of Personnel 3100, was appointed by the Governor last spring to serve on the temporary flood control board. He is a candidate for the permanent board. Mr. Scrivner came to Sandia Laboratory in October 1947. He was Director of Inspection until July 1959. Mr. Scrivner graduated as a civil engineer from the University of New Mexico in 1944.

Other candidates are: Mrs. Frances McCoy, Marvin C. May, B. H. Swinburne, Reginald J. Garcia, Frederick D. Trauger, Harold Shepard, E. G. (Bill) Begnaud, and Charles H. Dunphy.

The voters will elect five Board members from the 15 candidates.

## E. S. Roth Teaching Three Weeks At U. of Colorado Extension Center

Edward S. Roth of Advanced Manufacturing Development Division 2564 is teaching a three-week seminar at the University of Colorado Extension Center in Denver, Colo., during a part of his vacation. The seminar, "Product Definition and Acceptance Techniques," started Aug. 5 and will conclude Aug. 23.

The course, as planned and developed by Mr. Roth, is for design, quality control, production, process, inspection, and administrative personnel whose jobs include designing parts or prepar-

ing or interpreting engineering drawings. The course involves all the techniques and systems of defining the designer's intent and completely specifying all aspects of gaging and inspection.

Mr. Roth has been with Sandia 12 years. He worked as an electromechanical designer for seven years and as a consultant for tool, gage, and inspection engineers for the past five years. He is a graduate of Pennsylvania State University and has done postgraduate work at the University of Colorado and the University of New Mexico.

## Our American Landscape Faces Danger of Being 'Littered Under'

A booklet of prime importance to all of those who appreciate the value of a clean landscape will appear in the Sandia Corporation booklet racks Aug. 20.

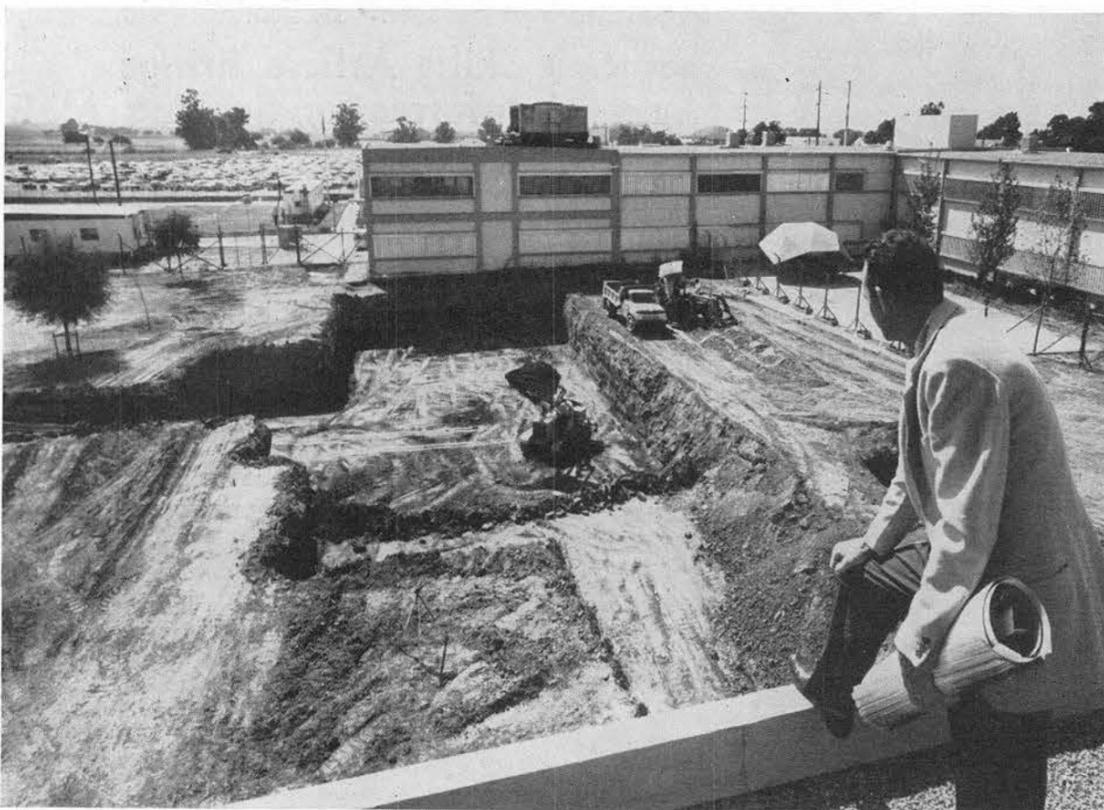
Written by Richard Hall, the booklet, titled "America the Littered," gives the reader a graphic—and sometimes awesome—idea of exactly how big the "litterbug" problem really is in America. Not only is the problem getting bigger, but so is the difficulty in solving it.

It could cost the country as much as \$100 million to pick up the debris scattered by our citizenry each year. It might be pointed out that the regular budget for the United Nations—an

organization for keeping the world's peace—was only \$80 million for 1962.

Here are some more interesting figures: More than \$50 million is spent annually to clean up major highways. The Forest Service annually budgets \$2.5 million for its house-cleaning job in the national forests. In New York City, three million tons of refuse—enough to fill 15 Empire State Buildings to their brims—are cleaned up each year.

The country is rapidly being littered under. "America the Littered" gives some good pointers about what can be done about it.



VANTAGE POINT on the roof of Bldg. 912 at Livermore Laboratory provides J. G. Harter (8221-1) with a view of the excavation for the new wing of the

building. When completed, the addition will connect the present wings of the building, forming a quadrangle. H. Halvorson, Inc., of Palo Alto is contractor.

## Service Awards

### 15 Years



Shary D. Holmes  
1121  
Aug. 17, 1948



Victor Gabaldon  
4253  
Aug. 17, 1948



George E. Hansche  
7220  
Aug. 17, 1948



Truman T. Gillett  
2323  
Aug. 18, 1948



James C. Laffoon  
2534  
Aug. 18, 1948



David S. Tafoya  
3455  
Aug. 18, 1948



Chester R. Clyde  
1422  
Aug. 19, 1948



Douglas B. Kennedy  
4413  
Aug. 19, 1948



Alcadio M. Romero  
4624  
Aug. 19, 1948



Arthur J. Roth  
2452  
Aug. 20, 1948



Ellis A. Turner, Jr.  
4472  
Aug. 20, 1948



Marion D. Tucker  
4131  
Aug. 23, 1948



Jeanne A. Jolly  
4135  
Aug. 23, 1948



John T. Dempsey  
4153  
Aug. 23, 1948



Richard H. Marmon  
4631  
Aug. 23, 1948



Largus E. Moore  
2441  
Aug. 24, 1948



Clarence U. Puthoff  
4513  
Aug. 24, 1948



Jim C. French  
4611  
Aug. 25, 1948



William O. Smitha  
4611  
Aug. 26, 1948



Alfred J. Heimer  
4614  
Aug. 27, 1948



Carlos M. Salazar  
4614  
Aug. 27, 1948



Harold V. Riley  
4213  
Aug. 30, 1948



George J. Torres  
4224  
Aug. 30, 1948



Frank D. Chavez  
4231  
Aug. 30, 1948



Walter Hall  
4250  
Aug. 30, 1948



Eliseo B. Gutierrez  
4623  
Aug. 30, 1948



Charles D. O'Connor  
4623  
Aug. 30, 1948



Raul Sanchez  
4624  
Aug. 30, 1948



Louis J. Frenkel, Jr.  
7524  
Aug. 30, 1948



K. G. Foster, Jr.  
8214  
Aug. 30, 1948



Bess Streater  
3000  
Aug. 31, 1948



Herman R. Perea  
4151  
Aug. 31, 1948



Oliver L. Vaughn  
4213  
Aug. 31, 1948



George W. Burnside  
7251  
Aug. 31, 1948

### 10 Years

Aldis S. Hayes 2344, Leo H. Bressan 2412, Francis E. Bell 3420, Adelina Lucero 3126, Hellen M. Grotberg 7512, Alfred C. Schwarz 1313, Roger M. Campbell 7242, John C. Reynolds 7212, Wencil F. Duben 2451, Jacob Barreras 4631, Wilbur L. Miller 8212.

## Blood Donors Are Urgently Needed For Employee's Son

Jerry Sanchez, 17-year-old son of Manuel Sanchez (4574), needs at least one blood transfusion a week to survive. Just recently he came out of a long stretch in the hospital where he received some 40 transfusions.

Blood donors are needed. If you can contribute, do so at the Southwest Blood Bank. Tell them the blood is for Jerry Sanchez. The way the bank works, a recipient must replace three pints of blood for every one he receives.

If you can donate, call Manuel at TR 7-0326. He would like to thank you for helping save a life.

## Five Named Members Of Coronado Club's Board of Directors

At a meeting on Aug. 5, the Coronado Club elected five new members to its board of directors.

New members include F. H. Bogott, ACF Industries; C. B. O'Keefe, supervisor of Secretarial Services Division 3126; R. E. Hepplewhite, manager of Design Information Processing Department 4430; G. D. Horne, Jr., supervisor of Programming Division II, 3455; and M. M. Newsom, supervisor of Weapon Systems Safety Section 1532-2.

Other board members include C. C. Fornero (2642), president; J. C. Mick (4253), vice president; Peter Creagh, AEC, treasurer; R. G. Elsbrock (3211), secretary; T. S. Edrington (7419); W. G. Funk (3120); T. B. Miller, AEC; and M. A. Holliday, manager of the Coronado Club.

## NORAD Band to Play Return at Coronado Club

The NORAD Band, whose dance music was enthusiastically received at the Coronado Club last year, will make another appearance tomorrow evening at the Club. Dancing will be from 9 p.m. to 1 a.m.; prices are \$1 per person for members, \$1.50 per person for guests.

This evening, the Club will offer a Fish Buffet, with social hour beginning at 4:45 p.m. Prices are \$1.25 for adults, \$1 for children.

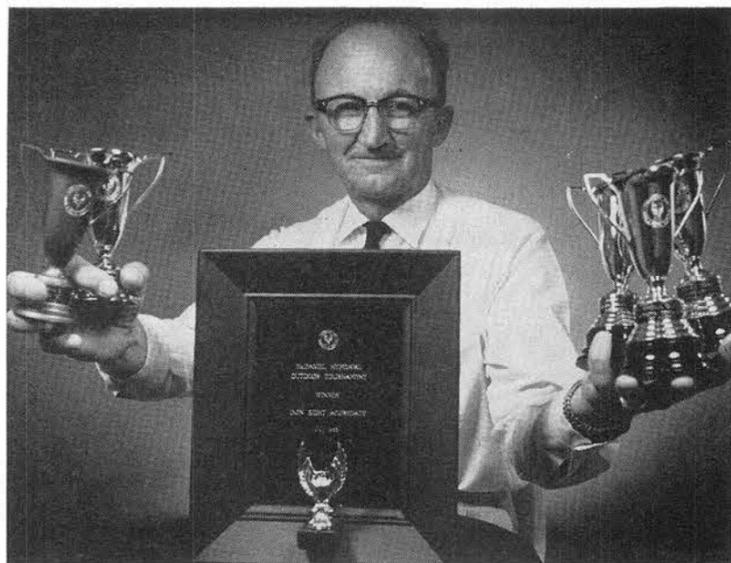
Family night at the Club on Sunday, Aug. 25, will feature the movie, "Bend of the River." Members are cordially invited to bring their families.



Patricia Beatty (3126/1413-1)

## Take a Memo, Please

Lift properly and get help when you must lift heavy loads.



Donald S. Bliss (2344)

—Rabbits beware, sharpshooter wins again—

## Rabbit Shootin' Makes An Expert Marksman of Sandia's Donald Bliss

Donald S. Bliss (2344) learned to shoot in self defense.

"Rabbits," he says. "They were wrecking my garden." This was back in 1946 when Don lived near Rochester, N.Y. His pride and joy was his half-acre garden.

"I bought a single-shot .22," he said. "It was my first rifle. I got plenty of practice on those rabbits."

Last week Don walked off with an armful of trophies earned by his marksmanship during the Mc-

Daniels Memorial Tournament in Cimarron. Don took First Master in three shooting events and third in another to win the overall iron sight aggregate award. He was competing against 62 marksmen from six states.

He's competed in matches in Wyoming, Colorado, Nevada, Arizona, Texas, and New Mexico. Next on his list are shooting matches in Utah and Oklahoma.

In the meantime, rabbits beware.

## Many Rheumatic Fever Victims Recover With No Heart Damage

by S. P. Bliss, M. D.  
Sandia Corporation Medical Director

Rheumatic fever, and the rheumatic heart disease that may follow it, account for much of the cardiovascular disease among young people. It is estimated that in the United States there are about 500,000 children aged 5-19 and about 500,000 adults who have had rheumatic fever.

Rheumatic fever may affect any part of the body. The effects on most parts of the body are temporary, but damage to the heart may be long-lasting.

Rheumatic heart disease is the result of scarring of the heart valves caused by rheumatic fever. This may interfere with the work of the vital "pump" that supplies the blood the body needs.

A great many rheumatic fever patients recover without permanent damage to the heart valves. However, the disease has a way of repeating itself, and each attack renews the chances for heart damage.

Heart valves damaged by rheumatic fever do not necessarily handicap the patient. When handicaps do result, the valves can be repaired by surgery in select-

ed cases. The exact cause of rheumatic fever is not known, but doctors do know that two to four weeks before a rheumatic fever attack there has usually been an infection caused by a germ of the streptococcal family — a "strep" sore throat, scarlet fever, or a "strep" ear infection, for example.

The main target in the fight against rheumatic fever, therefore, is this kind of streptococcal infection. Thorough treatment of the strep infection has been very successful in preventing rheumatic fever. For a patient who has had rheumatic fever, regular doses of penicillin or sulfa drugs over a long period of time are effective in preventing further strep infections — and thus warding off repeated attacks of rheumatic fever.

Rheumatic fever is the only major form of cardiovascular disease that can now be prevented if this knowledge is fully applied. It is therefore a major activity of Heart Associations to work with physicians, public health agencies, parents, and teachers, to stimulate the widest possible use of the preventive measures available.

## Dictation Skills Article Brings Flurry of Information-Seeking Mail

chines, techniques and good dictation. Since an article by Jean Gillette appeared in the June issue of Training Directors Journal, Technical and Trades Training Division 3132 has been flooded with requests for information.

Title of the article was "From Pencil to Mike—More for Company Writing Time." It described a Sandia in-hours training program in dictation skills.

Jean discussed in her article the course content — mechanical skills operating dictating machines, and organizing

ideas and materials for dictation. She also pointed out the time-saving advantages of dictating technical reports.

Requests for copies of the course material and visual aids have come from as far away as Western Nigeria and from such well-known American companies as General Dynamics, Maytag, and New England Telephone and Telegraph Company.

Jean has also received an invitation by the Industrial Education Institute to conduct a seminar in dictation skills.



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## AELMR Panel History

an essential part of the atomic energy program.

President Truman accepted this recommendation and appointed the members of this special study commission as the Atomic Energy Labor-Management Relations Panel. It became known as the Davis Panel, which functioned until February 1953. In March, President Eisenhower requested the re-establishment of an Atomic Energy Labor-Management Relations Panel, and designated members to serve upon it.

President Eisenhower stated the purpose of the Panel in this way:

"The uninterrupted functioning of our atomic energy program, without strikes or lockouts due to labor-management disputes, is essential to the national security. In achieving this we must, of course, place primary responsibility upon the parties to such disputes to make every effort to effect peaceful settlement through collective bargaining and the full use of mediation and conciliation. Prudence, however, dictates that we have special facilities available which may be used voluntarily to assist in arriving at peaceful adjustments of disputes which would imperil the program when the normal process of collective bargaining and mediation and conciliation have been fully utilized without constructive results. The Atomic Energy Labor-Management Relations Panel exists for this purpose."

Chairman of the panel is Cyrus S. Ching, former Director of the Federal Mediation and Conciliation Service. Other present members of the Ching Panel include Russell Smith, Professor of Law, University of Michigan; Rev. Leo Brown, Professor of Economics and Director of

the Institute of Social Order, St. Louis University; O. S. Colclough, Vice Admiral, U. S. Navy, Retired, Provost of George Washington University; David Stowe, former Administrative Assistant to President Truman; Abe Murdoch, former U.S. Representative and U.S. Senator from Utah, and former member of the NLRB; Robben Fleming, Professor of Law, University of Illinois; and Charles O. Gregory, Professor of Law, University of Virginia.

Those participating in the hearings in Albuquerque were Professor Smith, Professor Colclough, and Professor Gregory.

### Welcome Newcomers

July 26-Aug. 5

Albuquerque		
Donna C. Brown	3126	
Bartha S. Burkholder	3452	
Bill M. Casias	3427	
Beverly D. Conner	3126	
John Erni, Jr.	3428	
Marian D. Heckathorn	4413	
*Corrine A. Hoffheins	3126	
Beatrice A. Knauth	3126	
Frances L. Montoya	2643	
M. Alberta Pomerink	4333	
Thomas L. Spindle, Jr.	3427	
California		
*Roger F. Dashen, Pasadena	5410	
Missouri		
Robert W. Morris, Kansas City	5331	
New York		
Francis E. Giolma, Endicott	1422	
Ohio		
Stanley D. Meyer, Toledo	7332	
Wisconsin		
David B. Saylor, Madison	5426	
Returned from Leave		
Patricia M. Waggoner	3126	
* Denotes Rehired		

### Sympathy

To D. A. Wyatt (4233) for the death of his father, July 31.

To B. L. Palmer (4221-5) for the death of his son, Aug. 5.

To Mary C. Lafrenz (3422) for the death of her father, William H. Lafrenz, Aug. 4, and to D. J. Massey (7532-1), Mr. Lafrenz' son-in-law.

## Two Sandia Scientists Will Present Papers Before Chemical Society

M. T. Abegg, supervisor of Advanced Development Division 1311, and W. J. Meikle, also of Division 1311, will present papers at meetings of the American Chemical Society, Sept. 8-14, in New York City.

Mr. Abegg will present a paper titled "Low Detonation Pressure Explosives." The work reported in the paper was carried out at Sandia and Aerojet General Corp. Mr. Meikle will present "Explosive Evaluation of Coordination Compounds." Experimental work described in this paper was done at Sandia and Unidynamics Division of Universal Match Corporation. Both papers are scheduled for later publication in the journals of the American Chemical Society.

Mr. Abegg will preside at an explosives symposium scheduled to be held Sept. 11 during the meetings.

## H. C. Carmody to Retire from Sandia End of August

Howard C. "Cap" Carmody, supervisor of Special Projects Division 4612, will retire Aug. 31. He's been with Sandia since May 1948.

Cap came to Sandia Base in July 1946 as a captain in the U. S. Army Corps of Engineers. He was Assistant Base Engineer from 1946-1948; then he transferred to the Manhattan Engineer District — University of California unit on Sandia Base. He retired from the service as a major.

"Later, I supervised warehouse activities on the Base," he says. He's been in warehousing at Sandia since the Corporation began.

After retiring, Cap and Mrs. Carmody plan to travel. "We're going to Europe on a trip sponsored by the Berkeley 184 Club," he says. "We'll leave Sept. 21, fly over a polar route to Copenhagen, and spend four weeks in Europe. We'll return home in time to make a winter trip to Mexico."

They plan to make their headquarters in Albuquerque, where they have a daughter and two grandchildren; and in Sun City, Ariz.

### The Privilege of Service

## Tom Dooley Served to Earn Title 'Splendid American'



Dr. Tom Dooley earned the title, "The Splendid American." He helped his fellow men in underprivileged parts of the world, particularly in Southeast Asia. He founded MEDICO to raise money for medical stations in primitive areas. He devoted years of his brief life to the day-by-day treatment of the sick, the needy, and the victims of Red China.

"Pain, hunger, ignorance . . . are the things that go on for-

ever," Dr. Dooley wrote. "These are the things which Americans are so well armed to fight against. Gentleness, intelligence, and will can conquer.

"We keep telling ourselves that these people are our brothers," he continued. "As free men, we must remember that we have a duty to them.

"The instinctive pride that these young men and women (Vietnamese) had in becoming members of our team was a very bright and precious thing. We had to take their abilities and their youthfulness and teach them to grow tall and straight, glowing and strong.

"With these men of Asia, I found my life's work. My convictions have gained in strength whatever, from time to time, they may have lost in disillusion. I will work amongst these people. I will train them as best I can. But I must do more than just treat the sick. I must bear witness . . . I think all men should reaffirm what they know, what they believe."

The convictions of one man, Dr. Tom Dooley, "find" an echoing chord in Americans everywhere. His MEDICO is still progressing. At the same time, there are those in Albuquerque in need, youth desperate to grow strong.

Your ECP payroll deductions help every day. Give again, generously, when the drive starts in early October.

## Two New UCF Agencies Already Get Support from Sandia Employee Plan

Recent addition of four new agencies to the United Community Fund has changed the structure of next year's Employees' Contribution Plan.

Two of the new UCF agencies — Albuquerque Association for Mental Health and the Albuquerque Association for Retarded Children — were already participating in the Sandia plan. The other new UCF agencies are the New Mexico Council on Crime and Delinquency and the Albuquerque Area Council on Alcoholism, Inc. These bring the total of ECP participating agencies to 36. There are now 29 agencies in the United Community Fund. In addition, seven other health and

welfare agencies receive funds from ECP.

The New Mexico Council on Crime and Delinquency is dedicated to the prevention of crime by searching out crime's causes and contributing factors. The Agency works toward early discovery and treatment of impending delinquency and provides guidance and help in the community for non-dangerous offenders. The Agency conducts treatment programs for those who can be helped while in confinement.

Founded locally two years ago, the Albuquerque Area Council on Alcoholism, Inc. is now a member of the National Council on Alcoholism. Its main function is to combat the acute social and economic effects of alcoholism by educational methods and by helping those individuals in need of their services.

## Sandia Parents Note! Openings Exist in Base Kindergarten

Some openings exist in the afternoon classes of the Sandia Base Kindergarten. Sandia Laboratory parents who wish to enroll their children should contact the Kindergarten as soon as possible. The school is located on D St., Bldg. 1851.

Children who will be five years old by Jan. 1, 1964, are eligible as well as five and six year olds. Afternoon classes start at 1 p.m., end at 3:30 p.m. A birth certificate and immunization record for the child must be shown at enrollment.

## Flag Football Clinic

Next Tuesday, Aug. 20, a Sandia Laboratory Football Clinic will be conducted at the Base football field, north of the gymnasium. All employees who are interested in participating in the Sandia Flag Football League are invited to attend.

Demonstrations will be conducted to illustrate how to play the game under the Flag Football rules.

### Sandian Who Serves

## Life of Volunteer Fireman Not Easy Tom Mead Learns

This is another in a series of articles telling of service given to the community by Sandia employees.

Flame and smoke billowed out of one part of a four-unit apartment building in the South Valley. The units were converted surplus Army barracks. The entire structure was threatened when the Bernalillo County Volunteer Fire District No. 2 team arrived.

Rapidly, men and equipment went into action. While part of the team surrounded the building and spread water over the roof and threatened areas, Tom L. Mead (3242) entered the burning apartment with a high pressure fog hose. Within minutes the flames were smothered. Suddenly Tom received a terrific jolt of electricity.

Later, the cause of the fire and accident proved to be a short from the electrical power line into the plumbing pipes of the apartment. Apparently, Tom touched some piece of "live" metal.

"I was wearing rubber boots," Tom says. "This pretty well insulated me and probably saved my life." Tom spent one day in the hospital and spent three more at home recuperating.

As Assistant Fire Chief of the District No. 2 volunteers, Tom answers night fire alarms on the average of once every three days. There have been 110 fire runs for the group since Jan. 1 this year. In 1962, the volunteers answered 139 calls and 126 calls in 1961.

Tom helped organize the District on April 1, 1960. They operated a year "on their own" before they were eligible for state funds. Now, with a gleaming new fire engine and pumper, plus the original truck and tanker they purchased on their own, the District No. 2 volunteers are a well-equipped, well-trained, experienced group. They even built their fire station on Riverside Drive.

Tom started as a volunteer



TOM L. MEAD (3242) is Assistant Fire Chief of the Bernalillo County Volunteer Fire District No. 2. He helped organize the unit which now provides fire protection for the residents of the Five Points Area.

# Greeks Knew Atoms As 'Atoma'

With the following article, the Lab News begins a series about men and the atom, studies of individuals whose contributions in physics and related sciences form the foundations of the Atomic Age. In this issue, we trace the earliest beginnings of atomic theory, and survey the work of the English schoolteacher who became the first great atomic theorist, John Dalton.

The first theories about the atomic structure of matter were made, fittingly enough, by the same people who laid the foundations for Western culture, the Greeks. In the Fifth Century B.C., a philosopher whose name we think was Leucippus (scholars aren't sure he really existed) and his pupil Democritus founded a school of "atomists," and taught that all material things were made up of small indivisible units which Democritus called *atoma*. Their ideas were based on a broad concept of the structure of matter which may have originated with certain Hindu philosophers of a still earlier age.

The Greek *atoma* were different from the atoms with which we're familiar. They believed that all atoms were the same, differing only in figure (such as A from N), arrangement (as AN from NA), position (as N is Z turned on its side), and magnitude, although some theorists disputed this last quality. And they thought that atoms were different in the impressions they made on peoples' senses; for example, atoms of water were smooth and round (how else could water flow?) and atoms of iron were jagged and covered with hooks that enabled them to be linked together in dense masses. All phenomena, according to the Greeks, were composed of the same eternal atoms, in somewhat the same way — as one of them pointed out — that all Greek tragedy is written with the same letters of the alphabet.

## In Latin Poem

A detailed treatment of their ideas and theories can be found in a Latin poem by Lucretius, written in the First Century B.C., called "On the Nature of Things."

Atomic theory in those days wasn't so much a matter of physics or science as it was of philosophy; since the Greek philosophers were able to theorize about the nature of things but were unable to test out many of their theories scientifically, there was much disagreement among them. Although the teachings of the atomists were supported by many of the important philosophers of the day, they were condemned by others.

And largely because of the objections of Aristotle, who was very influential among the Greek philosophers of the Third Century B.C., the theories of the atomists made little headway. They were dormant for several hundred years; then, they were revived in the Sixteenth and Seventeenth Centuries A.D. by such philosophers and scientists as Galileo in Italy; Descartes in France; and Boyle, Bacon, and Newton in England. These men favored the idea that matter, far from being continuous in Nature, is, instead, made up of "ultimate particles" or atoms.

But it wasn't until the 19th Century that the work of one scientist transformed the concept of the atom from a rather vague philosophical idea into a material reality. The origin of modern atomic theory, along with credit for laying the ground work for the recent development of a large body of knowledge about the atom's internal structure, is attributed to an English schoolteacher and mathematician named John Dalton.

## Son of Weaver

Dalton was born in 1766, the son of a weaver who belonged to the Society of Friends. Young John received his education from his father and from a Quaker teacher named John Fletcher. He spent his early years teaching and farming; later, he taught at Manchester College, Oxford, and in 1799, he became "a public and private teacher of mathematics and chemistry."



As a scientist, Dalton investigated many natural phenomena, but one area which received his continued attention was the study of the characteristics of solids, liquids, and gases. His ideas about the atom as a purely physical thing may have grown out of his study of the physical properties of the atmosphere and of other gases.

Confronted by the existence of a substance such as water in gaseous (steam), liquid, and solid (ice) states, Dalton concluded that "all bodies of sensible magnitude . . . are constituted of a vast number of extremely small particles, or atoms of matter bound together by a force of attraction."

He published the first indications of his new ideas in a paper, "Absorption of Gases," in 1803. "Why does not water admit to its bulk of every kind of gas alike?" he asked. "This question I have duly considered, and though I am not able to satisfy myself completely, I am nearly persuaded that the circumstance depends on the weight and number of the ultimate particles of the several gases."

## Chemical Analysis

Faced with the problem of determining the relative diameter of the particles which, he was convinced, constituted all gases, Dalton sought a solution through chemical analysis. He arrived at the idea, through chemical analysis, that chemical combination takes place between particles of different weights. By showing how the weights of different atoms relative to one another could be determined, he introduced a vital new feeling of reality into the abstract theory of the ancient Greek philosophers.

Dalton's most significant contribution to atomic theory was probably his attempt to determine the relative masses and weights of atoms. The actual atoms are, of course, too small to be weighed directly, so Dalton expressed their weights in relation to that of a specified atom — the hydrogen atom — to which he assigned the weight of "1." The weights of the other atoms were then recorded in terms relative to the weight of the hydrogen atom.

## Three Theories

His procedures for obtaining relative atomic weights were based on three theories: (1) that the "ultimate particles" of a given pure substance are alike in size, shape, and weight; (2) that chemical reaction doesn't cause any change in the nature of atoms, but results only in their rearrangement; and (3) that combination of atoms takes place in the ratio of the simplest numbers; for example, one atom of A plus one atom of B equals AB, or one atom of A plus two atoms of B equals AB<sub>2</sub>, etc.

But if Dalton's thinking was revolutionary, his methods were sometimes erroneous, although

they were carried out according to the principles he'd evolved. At the time, only one compound of oxygen and hydrogen — water — was known, and he used it to determine what he took to be the weight of a single atom of oxygen.

He assumed the compound of water to be the simplest one possible, namely, one atom of hydrogen plus one of oxygen: HO. By chemically analyzing water, he found that it was made of one part by weight of hydrogen and seven parts by weight of oxygen. Therefore, he assigned to oxygen the relative atomic weight of seven — later found to be eight.

## Atomic Weights

Instead of determining the atomic weights of the elements, Dalton determined the equivalent weights, that is, the weight of an element that replaces, or combines with, one part by weight of hydrogen. Today, we know that true atomic weight is a simple multiple of equivalent weight, and that the multiple must be the same as the number of atoms of hydrogen which unite with one atom of a given element. Thus, in water, two atoms of hydrogen combine with one of oxygen (H<sub>2</sub>O), and the atomic weight of oxygen is exactly twice its equivalent weight. If Dalton had used the formula for water that we know, H<sub>2</sub>O, he'd have arrived at an atomic weight of 14 for oxygen instead of seven, a weight which more or less agrees with the even more accurate weight of 16, determined by more modern methods.

With improved methods of chemical analysis, scientists derived increasingly accurate values of the equivalent weights of the elements. But the revolutionary thought about atomic theory, the thought which clarified the older theories and which cleared the way for further research and experimentation, was Dalton's.

Running parallel with the development of atomic theory in the minds of men, we find another important principle based on Greek philosophy, that of the elements. In a forthcoming issue, we'll briefly examine the principle and some of the men who gave it shape and meaning.



LIVERMORE LABORATORY news stories, appearing in the Livermore Herald and News, are often carried by Bay Area newspapers and national media as well. Here Dick Dickson, center, and Bob Harks, right (both 8233-1), discuss aspects of a story with Livermore Herald and News reporter Rob Evans. In background are the newspaper presses.

## Nation's Press Taking Note of Sandia's Technical Activities

Press clipping files in Sandia Corporation's Public Relations organizations are bulging these days. Both at Sandia and Livermore Laboratories, a significant increase has been noted in the amount of coverage Sandia Corporation activities have received in national publications.

Articles have appeared in *Time*, *Look*, *New York Times*, *Popular Mechanics*, *Metalworking News*, and *American Machinist*, in addition to dozens of other semi-technical publications.

"Most of these articles reported significant and specific Sandia achievements," Ted B. Sherwin, supervisor of Public Relations Division 3431, commented. "The *Time* articles discussed the development of the Whitfield Clean Room and the development of a homing parachute."

From Livermore, *Popular Mechanics* reported on the development of a printed circuit drill, and *Metalworking News* discussed Livermore Laboratory's use of an automatic milling machine.

"Factors contributing to this increased coverage," Mr. Sherwin continued, "include a general increase in interest in science and technology throughout the coun-

try. People are becoming aware that scientific developments affect the pattern of living much more rapidly these days."

Sandia Laboratory recently has been assigned several unclassified projects of national importance such as aerospace nuclear safety and the aerospace nuclear debris sampling program. This provides more opportunities for releases on technical accomplishments. Also, President Kennedy's visit to Sandia Laboratory last December called attention to Sandia and gave many prominent writers a first hand look at the Laboratory.

The Public Relations Department has also arranged other activities which produced good press coverage. When the Sandia Engineering Reactor Facility was completed last year, national and local news representatives attended a press tour of SERF. Sandia's extensive participation in the National Science Fair in Albuquerque this year was a further opportunity for the Public Relations organizations to cooperate and provide information to national media.

At both Sandia and Livermore, increased technical and scientific activity is providing material for releases which will bring national recognition for Sandia and its staff, Mr. Sherwin believes. Reporting these accomplishments in scientific circles is the task of Technical Information Department 3420 and Information Division II, 8233, which is usually done after an initial presentation has been made by an engineer or scientist at a conference or seminar.

"After the presentation or publication of a technical paper," Mr. Sherwin said, "the semi-technical and popular press often asks for additional information suitable for their use. This gives us the opportunity to arrange 'more mileage' from the material."

All technical information being considered for release is reviewed by Classification, usually at the time the engineer's report or manuscript is prepared. Once the material is cleared for dissemination through the AEC's technical information channels, public release is authorized without further classification review.

Mr. Sherwin emphasized that the Public Information Division does not originate technical material. "We urge all technical people at both laboratories who are working on significant unclassified projects to let Public Relations know about it, preferably well ahead of the time when results are expected. That way, we can plan ahead and arrange for the necessary reviews, photo coverage, etc.," he said. "We can then arrange for reporting of the project to the Lab News and help develop the material for timely use by specific local and national publications."

At Livermore Laboratory, contact either Richard A. Dickson or Robert J. Harks of Section 8233-1, ext. 2395. At Sandia Laboratory, call James E. Mitchell or Robert P. Gall of Division 3431, ext. 21253.



EXAMINE ARTICLES — Jim Mitchell, left, and Bob Gall of Public Relations Division 3431 look over some of the articles about Sandia Corporation activities which have appeared in national publications.

# Employees Perform in Fry's 'Lady's Not for Burning'

Two Sandians, William F. Carstens (3423) and Crawford J. MacCallum (5411) will appear in support characterizations of the Corrales Adobe Theater's production of "The Lady's Not For Burning" by Christopher Fry. The play opens this evening.

Bill will appear as Hebble Tyson, the mayor of the small fifteenth-century community of Cool Clary. He recently played



—The Chaplain—  
(Crawford MacCallum)

Lennie, the retarded hero of the Theater's first production of the season, "Of Mice and Men," by John Steinbeck. "It might be said that I've progressed," Bill commented, "from playing a moron to depicting a fathead." Hebble Tyson, described by the author as having been "afflicted with office," is a thoroughly supercilious character.

Crawford will appear as the Chaplain in the production, a character distinguished, among other things, by his affection for a viol—a medieval ancestor of the modern viola—which he carries through his entire performance. "The Lady's Not For Burning" will run through the weekends of Aug. 16, 23, and 30. Reservations can be made at the box office (phone 344-9461) after 2:30 p.m. during the weekends of performance.



—Hebble Tyson—  
(Bill Carstens)

# Sandia Slow-Pitch All-Stars Defeat 901st Co. Team

The Sandia Laboratory Slow-Pitch Softball All-Stars downed the Sandia Base 901st Co. team 22-13 in a fast-action game last week. The 901st led in the second inning 9-0, but the Lab All-Stars scored 22 runs in the remaining five innings and held the 901st to four runs.

The All-Star team was chosen after the Slow-Pitch wound up league play recently. The 13, 24, 44, 7100 team took the league with a 12 won and 3 lost record. Team 3400 came in second with 6 wins, 7 lost.

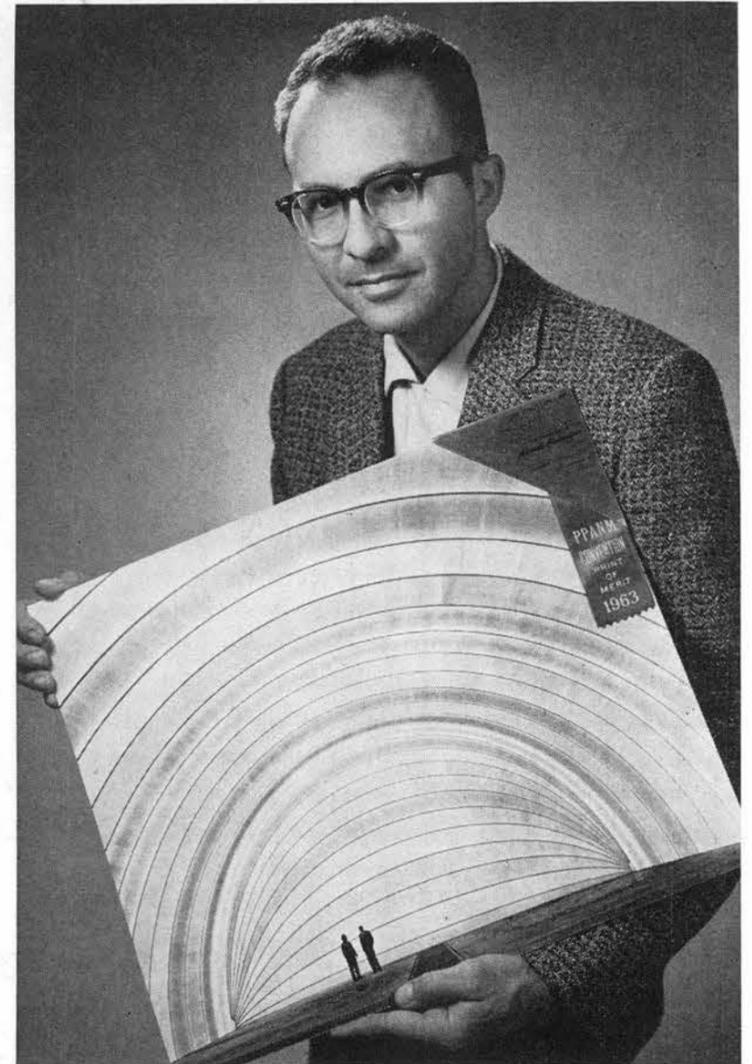
Members of the All-Star team are Norbert Siska (2451), Milt Madsen (7324), Ted Garcia (3444), Floyd Salas (3444), Bob Jaramillo (3444), George Kolesar (4411), William Saric (7311), Mike O'Bryant (4411), J. F. McDowell, Jr. (2564), Winfred Bergsten (2564), Louis Nogales (3444), Lee Stevens (AEC).

Kenneth Kimball (2564), John Rosborough (2452), Gene Long (2641), Leo Klamerous (2564), Joe LaCrone (AEC), Bill Emrick (2442), and Joe Bradshaw (7324).

# Ski Club Members Set Party, Swim At Coronado Club

Coronado Ski Club members will hold a party Friday, Aug. 30, at the Coronado Club. Festivities will get underway after the regular Friday social hour and buffet at the Club. Free refreshments and a swim session are features of the party.

Guests of members will be charged 50 cents, according to Bill Lemmon, Ski Club president. New members are invited. Bill said. Additional information is available by calling ext. 54153.



PRIZE-WINNING PHOTO by Bill Geck of Still Photographic Services Section 3465-3 was shown at the Professional Photographers of America National Annual Exhibit, July 22-26. The photo also won a "Print of Merit" award at the Professional Photographers Association of New Mexico exhibit. It shows an interior view of an air-supported dome.

## SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER ● SHOPPING CENTER

**CLASSIFIED ADVERTISING**  
Deadline: Friday noon prior to week of publication unless changed by holiday.

**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

**FOR SALE**

SIMPLEX SPORTSMAN motor bike, purchased 6/17/63, approx. 1200 miles, \$100 discount, \$150. Bookwalter, 268-3915.

OPEN HOUSE, Saturday and Sunday 1-5; 3-bdr., den w/fireplace, 2 baths, \$500 down FHA, 1600 sq. ft., 11017 Phoenix NE. Ray, AX 8-0408.

KENMORE AUTOMATIC WASHER, 1956 model, rebuilt motor, runs (20 loads weekly), \$25. Trybul, 298-3325.

FRENCH PROVINCIAL COUCH, original cost \$700, will sell for \$325 or best offer. Hendren, CH 3-2647.

BEAGLE PUPPIES, AKC registered. Fisher, AX 8-2546.

BLOND DESK w/chair, \$40. Westmark, AX 8-1945 after 5 p.m.

9 MM, P-38 Walther automatic pistol, w/33 cartridges, \$45. Hackman, 298-1028 evenings.

14' SOONER-CRAFT, 35HP Evinrude, trailer, life preservers, ski equipment, \$650. Williams, 256-6906 after 5 p.m.

'50 CHEV. PICKUP, R&H, '58 Borgward. Netz, AX 9-7036.

ACCORDION, 120 bass, \$80; car cooler, \$25; baby car seat, \$5; car bed, \$5; feeding table, \$15; evap. room cooler, \$15. Sisson, AX 9-4217.

30-40 Krag sporterized, Redfield sights, Bishop custom stock, 4x scope. Apodaca, 255-8167.

BERRY GARAGE DOOR, standard size 7'x 8', all attachments included. Garcia, AX 8-1358.

ACCORDIANA, white pearl and blue trim, 120 bass, 41 treble keys, 2 bass and 3 treble switches, straps and case, \$185. Glass, 298-0842.

3-BDR., den, fireplace, family kitchen, a/c, carpet, garage, sprinklers front and back. Murtha, AX 8-1986.

DINETTE, 7-piece Bronzaton, \$40. Oberle, DI 4-6994.

KODAK 35 mm stereo slide camera, flash attachment, Brockway light meter, \$75. Peckum, 256-3363.

MICROSCOPE, 450 power, electric light, Labmaster-216, slides, specimens, original case; trade for telescope or best cash offer. Jackson, AX 9-0942.

UPRIGHT VACUUM CLEANER, Kenmore's largest model. Sundberg, AX 9-2177.

CAMP TRAILER, Ward's Traveler, used twice, total cost "on sale" \$425, sell for \$350, no dicking. Littrell, AL 6-3720.

UNDERWOOD PORTABLE TYPEWRITER w/case. Morrissey, CH 7-1130.

3-BDR., a/c, walled yard, near both bases, low down, no qualifying. Stark, 268-6282.

CHILD'S "Little Red Schoolhouse" playhouse; extra heavy swing set; climber; merry-go-round. Weber, AX 8-2539.

BLACK BANTAM CHICKENS, 3 months old, roosters or hens, 75c each. Shock, 877-3728.

DRESSER, 3-drawer, \$9; Hi Fi cabinet, mahogany, \$19; dining room table, 6 chairs, sabled oak, \$49. Winblad, DI 4-3109.

AUTOMATIC WASHER, Whirlpool, \$25 or trade for sewing machine. Allen, AX-9-9075.

GIRL'S 24" bike, \$12. Baxter, 1610 Bayita Lane NW, DI 4-7601.

.22 CAL. COLT Buntline revolver, less than 1000 rounds fired, holster included, \$45. Horstman, 247-8522.

'63 YAMAGUCHI SCOOTER. Landavazo, 3228 San Mateo NE, 265-4717.

LARGE R-1 LOT, ready to build on, located NE in area of new construction, \$2450. Bentz, AM 8-8267.

GOLF CLUB SET w/bag. Braun, CH 7-8435.

LEAVING STATE, must sell 3-bdr. home in Paradise Hills, low down payment. Doyle, 898-2191.

WELBILT GAS RANGE, used 1 year. Koger, 298-2103 after 5 p.m.

'55 CHEVROLET 6-cyl., stick shift, \$300. Crowder, 7101 Kiowa NE, 299-3495.

'61 MERCEDES BENZ 220-S, 4-dr. sedan, 15,000 miles, service records, safety belts, tachometer, \$3200. Stanley, 265-1080 after 5 p.m.

'51 CHEV. 2-dr., some new parts. Precit, AX 9-3438.

KENMORE AUTOMATIC WASHER, \$10; gas dryer, \$30, washer requires repair. Rayner, 345-1174.

MAHOGANY CHINA CABINET, \$65; mahogany drop-leaf table, \$25. Stathis, 268-4037.

3-BDR. den, University area. Pearl, 256-6541.

AMERICAN BUILDERS 3-BDR, 1 1/4 baths, built-ins, stove, refrigerator and ironer included, swimming pool, landscaped. Janus, 255-8228.

METAL CLOTHES CLOSET w/vanity, mirrors, center drawer; 21" TV, Westinghouse, 1958 table model. Whelchel, 299-1134.

NATIONAL NC-303 communications receiver \$315. Bauer, AL 5-7774.

IRRIGATION CENTRIFUGAL PUMP, 1/2 HP, 1 1/4" inlet, 1" outlet, 48 gal. p/m, \$45. Ortiz, 877-3025.

GERMAN LUGER, original condition, \$65; Colt Frontier, \$85; Henri Edouard's Free Match pistol, \$165. Smitha, 8607 Menaul, AX 9-1096.

'53 CHRYSLER Crown Imperial 4-dr. sedan, black, PB, PS, PW, w/w tires, AT, radio, low mileage, \$450, will trade. Browning, AX 9-6384.

'62 VW MICROBUS, low mileage, \$1500; hitch for 1957 Pontiac, \$10. Class, 255-4952.

COMPLETE HAM STATION, KE-93 receiver, AF-67 Elmac transmitter, AC-DC power supplies for both units, 3-band mobile antenna, microphone, \$325. Brammer, 2701 Cardenas Dr. NE.

LIMED OAK TABLES, 2 step, 1 coffee, \$30; GE portable disposal, \$20; Nesco Fryrite deep fat fryer w/cover, cookbook, \$10. Smith, 299-1264.

**NEXT DEADLINE FOR SHOPPING CENTER ADS Friday Noon, Aug. 23**

AUTOMATIC DISHWASHER, GE Mobile Maid, \$30; trailer hitch, universal type, frame mount, \$5; high chair, \$3; crib mattress, \$3. Dodd, AX 9-6330.

BOWLING OXFORDS, new, size 5, L.H., \$3; double barrel 12 ga. shotgun, \$25. File, DI 4-8853.

'63 SEA KING MOTOR, 5 HP; 12' aluminum Sea King boat, used three times, bought in June. Brown, AX 9-1689.

PLASTIC POOL, 10' diameter, 2" deep, metal sides w/cover. Grant, 255-6105.

GENTLE HORSE, \$125; saddle and bridle, \$75; Jeep station wagon, best offer. Browne, DI 4-6831.

CARPET, dark green, 12x15, newly cleaned, moth-proofed, wrapped, \$30. Anderholm, 299-0482.

'51 FORD V8, new tires, OD, R&H, \$195 or best offer. Svensson, DI 4-7700.

FIBREGLASS INSULATION, 150 sq. ft., 1", 4-roll, \$7.50; 2 nylon pickup 670x 15, 6-ply, commercial mud-snow tires, \$30; set commercial 670x15, 6-ply tires, tubes, \$50. Doggett, AX 9-7957.

REFRIGERATOR-freezer cabinet only, 14 cu. ft., push button defrost, \$40. Weaver, AX 9-1581.

JACKSON AUDIO GENERATOR; Bissell carpet sweeper; Johnson mobile rig; World War I picture books. Laskar, AX 9-1024.

DACHSHUND PUPPY, 9 weeks old, pure bred, \$25; tape recorder. Wollensak, \$99.50. Frettem, AX 9-1588.

FREE PUPPIES, happy, healthy, roly-poly. Mattison, AL 6-3951.

NORGE REFRIGERATOR, 11 cu. ft. w/ freezer chest, \$40. Appel, AX 9-3776.

HIDEABED SOFA, black frieze upholstered, \$60. Gearhart, AL 5-7409 after 5 p.m.

ARGUS C-44 35mm camera, 35mm, 100 mm lenses, cases, flash; GE DW-68 light meter w/case. Baron, 242-8383 evenings.

'53 CHEVY 4-dr., R&H, w/w tires, \$200. Johnson, 268-6058.

ARMY TENT, lightweight hexagonal, liner, collapsible aluminum pole, \$30; Exa single lens reflex camera, f2.9 lens, 35mm, \$30. Maddox, 268-5554.

WILSON Patty Berg ladies' golf clubs, unused, 5 irons, 2 woods, and bag; Singer zig-zag automatic sewing machine, walnut cabinet. Shunny, 298-0726.

LIONEL TRAINS, 2 sets, extra track, auto-switches, signals, etc., on 4x8 table, cost \$175, all for \$80. Scott, AX 9-3412.

CUSTOM-MADE TENT for Jeep station wagon, fastens over tail gate and window, \$20. Stevens, AX 9-6086.

'61 VW SEDAN, seat belts, undercoat, radio, w/w. Reich, 268-7968.

CAPEHART FM-AM phonograph radio, dark mahogany console, \$75. Rosenbaum, AL 5-5357.

REFRIGERATOR AND STOVE, 1 yr. old; .22 rifle; evaporative cooler; aquarium; other assorted items; moving. Lowry, 298-0178.

SHOTGUN, 12 gauge Ithaca, Featherweight, perfect, \$65. Ives, AX 9-7003.

TOY POODLE, purebred, silver, female, 3 yrs. old, no papers, \$35; 1 female, 6-wk. old, half poodle puppy, free. Judd, AX 9-6536.

RECORD CHANGER, 3-speed Webster w/ General Electric cartridge and diamond stylus. Hays, 299-2524.

'55 PONTIAC HT coupe, R&H, w/w, \$350; three 8.20x15 used w/w, \$2 ea.; two 15" wheels for Chevrolet. Wilson, AX 8-0049.

3-PIECE BEDROOM SET, 2 yrs. old, w/ mattress and boxspring, \$125. Smith, 265-0484.

'51 MERCURY 2-dr. sedan. Matlock, AL 5-0109.

REFRIGERATED AIR CONDITIONER, Duotherm, 1-ton unit, \$75; washer, Westinghouse Landromat, \$25. Burton, 298-4930 after 6 p.m.

'57 PLYMOUTH Belvedere, 4-dr., R&H, Hydramatic, gold and cream. Oravec, 299-3247 after 5 p.m.

TWENTY ACRES near Torreon and S. 10, heavily wooded, title insurance, \$150 acre cash. Weir, AX 9-1160.

HOTPOINT ELECTRIC RANGE, 39", deluxe model, oven timer, warming oven, \$40. Newman, 268-0314.

'58 CHEVY six, standard, 54,000 miles, original owner, \$495; '51 Packard, \$50 or trade. Butler, AX 9-5626.

'57 FORD custom 300 2-dr., Fordomatic, R&H, \$450. Disch, AX 9-1201.

NEW GEORGE Steck studio piano, owner leaving town, take over payments. Starrett, 256-0862.

MATCHED ENSEMBLE for children's room: twin bedspreads, 2 pair drapes, \$10. Joseph, AX 9-6989.

3-BDR ROBERSON, 1 1/4 bath, family room, near schools, churches, 11013 Apache NE. Gay, AX 9-5677.

'56 PIPER TRIPACER, VHF, superhomer, LF radios, low time engine, Moore, 256-2748.

CHILD'S rocking horse; car seat; car bed uses standard size crib mattress; 4-drawer chest, 18"x18"x36". Randall, AX 9-3935.

VOLKSWAGEN CAMPER, '62 model, fully equipped. Miller, 298-1994.

MONARCH ELECTRIC RANGE; GE refrigerator; grey nylon couch; antique dinette set; small porcelain table and chairs. Warder, 256-9156.

WHITE NAUGAHYDE STUDIO COUCH, \$45; 7.50x14 wsw tires, \$5 each; 2 butterfly chairs, \$2 each; dinette set w/chairs, \$15. Oline, 268-6606.

PRE-DUG AFRICAN BERMUDA, \$1.50 sq. yd., 2412 Elizabeth NE. Higgins, AX 9-4302.

AKK BASSET PUPPIES, 7 wks. old, red and white, and tri-colored, sire of champion stock. Kelly, 268-8913.

IRONRITE IRONER, \$20; wardrobe suitcase, \$10; Coldspot refrigerator, 7', \$40. Granum, 243-1491.

LEVER-ACTION MARLIN 39A; .22 cal. rifle, S, L, LR, recently bore-sighted, \$35 or best offer. Miller, BU 2-3168.

'63 SCOUT 4x4, \$2295; TR-10 tractor, \$650; '57 Volkswagen, \$695; 1000 watt generator, \$50. Foster, ext. 27231.

'58 JEEP WAGON, 6-cyl., OD, seat belts, \$650. Neilsen, AL 5-2045.

'60 FORD pickup 1/2-ton V8, 3-spt. Everett, AX 9-6057.

BREAKFRONT in rich dark mahogany, best offer. Nelson, AL 6-6300.

'51 MERCURY 2-dr., snow tires, \$150 cash. Hiller, 299-7573.

LIMED OAK DINING ROOM SET, hutch, table, 6 chairs, \$150; 2 limed oak step tables, coffee tables, \$30. Prentice, 299-4595.

HURLEY PRESS IRONER, new. Conklin, 4608 Pershing SE, AM 8-6050.

NEW 3-bdr. house in NE, 1 1/4 baths, attached garage, low down payment, 5 mins. from Base entrance. Roberts, 299-7129.

BEDROOM FURNITURE, Ranch oak double bed w/bookcase headboard, matching 8-drawer chest; 2 Hollywood beds w/innersprings, mattresses, make offer. Kubiak, 256-1513.

AIR CONDITIONER, Sear's window mounting, 1 yr. old, single speed w/vane control. McVey, 11525 Tahiti Pl. NE, 268-9229.

EARLY AMERICAN davenport and chair. Eslinger, 2838 Alvarado NE, AM 8-1209.

**WANTED**

USED TRAVEL QUEEN CAMPER, 1962 or 1963 model in excellent condition. Wilson, BU 2-3225.

WILL CARE FOR one or two girls, age 2, 3, or 4, in my home five days a week as companion for my 4-yr.-old. Pleger, AX 9-1709, 1416 Espejo NE.

TAPE MACHINE w/capstan drive. Baxter, DI 4-7601.

REAL ESTATE CONTRACTS for cash, discounted, any size, any age, or almost any condition. Thompson, AX 9-3416.

OLD 45 R.P.M. popular records (1953-1963). O'Bryant, 268-9049 evenings.

HOME for grey short-haired, white-footed, house-broken male kitten. His mother won cat show silver cup. MacCallum, 344-9088.

'58 or '59 RAMBLER American, automatic transmission, excellent condition. Joseph, 299-6989.

TO TRADE stereo set, stereo tape recorder, guns, gas stove, Chippendale couch; need power tools, guns, Hi-Fi gear, etc. Butler, AX 9-5626.

TO BUY certain old issues of Flying Aces and Model Airplane News magazines, will pay good prices. Breitenbach, 268-7900.

TWO BOWLERS for Thursday night Sandia Handicap League, 160 average or better, at the Holiday. Davies, AX 9-2115.

SET of left-handed golf clubs. Quigley, AX 9-3178.

BACHELOR to share 2-bdr. home, 604 Princeton SE. Matthews, 242-6285.

THREE RIDERS, vicinity of Gretta and Indian School Road, NE. Smith, AX 9-7122.

WANT TO LEASE or buy from owner, 4-bdr. and family room, custom home in heights. Driver, 256-7941.

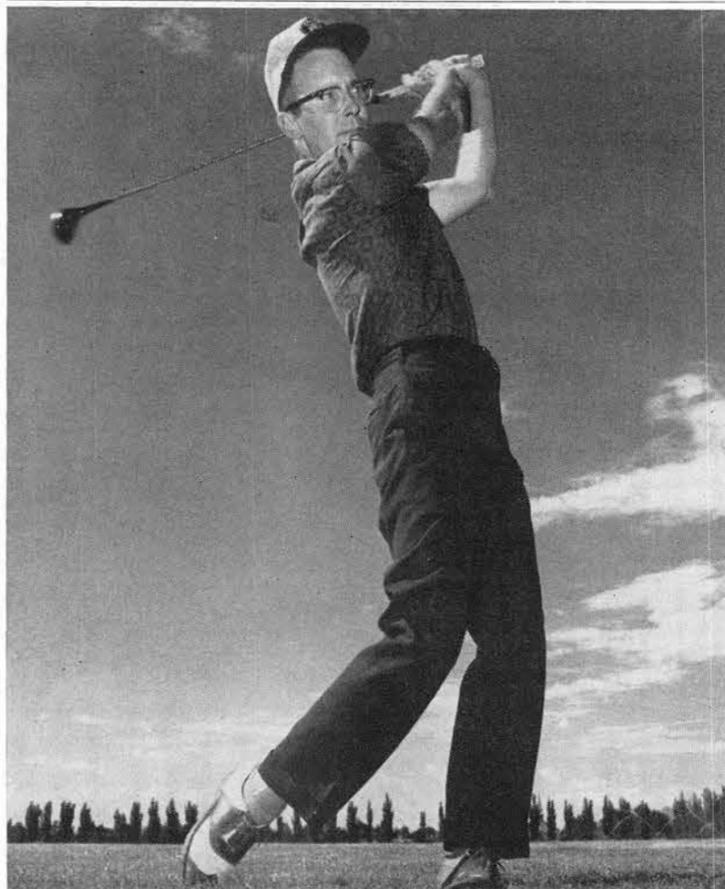
CHILD'S swing set. Sektnan, AX 8-0373.

**FOR RENT**

TWO-BDR. and den, \$95/mo. Elder, 268-7479.

TWO-BDR. APTS., stove, refrig., a/c, walled yard. Milligan, CH 2-2959.

TWO INDIVIDUAL BEDROOMS, newly furnished, TV, use of garage, large room w/garage, \$45; small room, \$35. AX 8-2287.



Jim Leonard (7419)  
—Champ of three out of four Sandia tourneys—

## Jim Leonard Wins 3rd Golf Tourney To Lead Association by 18 Strokes

With his recent win of the Tri-Atomic Golf Tournament, Jim Leonard (7419) now holds the championship of three out of the five tournaments played this season by the Sandia Employees Golf Association. Jim took the Tri-Atomic low gross crown with a 74.

With this win, and the second place he racked up in the Fred J. Given Memorial tourney, Jim is leading the league for individual low gross honors by 18 strokes. He took the Socorro tournament with a 75 and the Four Hills meet with a 76. He is well on his way to repeating the past two years' performance when he came out on top of the league in individual scoring. Five tournaments remain in the league schedule.

Starting as a caddy for his fa-

## Two Accidents Down Sandia Laboratory Safety Standing

Two accidents last week downed Sandia Laboratory's safety record.

On Thursday, Aug. 8, an employee unloading a heavy gas cylinder from a truck onto a loading dock suffered a broken big toe on his right foot. He had lifted the cylinder and tilted it so that it would roll on its bottom edge. His grip slipped and the cylinder toppled over across his right toe. He was treated by Sandia's medical organization and is now recuperating at home.

On Sunday, Aug. 11, a maintenance employee was working on a power line in Area III from a giraffe platform. He made contact with an energized line containing 2400 volts. The current surged through his left forearm and right hand. He received severe burns.

He was taken by ambulance to a local hospital where he is still undergoing treatment.

ther when he was nine, Jim "grew up on a golf course." At 13, he was a caddy for the Ridgewood Country Club in Cleveland, O., and was seriously playing the game. He competed in high school and college meets. At 20, he returned to the Ridgewood Club to take the club championship.

"My best year was 1960," Jim says. "I won the Spec Stewart Open in Albuquerque and the same year set a course record of 64 at Los Altos."

Jim plays golf for fun and relaxation but admits that he takes the game seriously and enjoys the competition.

"The mental side of the game is more important than most people realize," Jim says. "It takes concentration. And practice. If you can only play on weekends, try to work in practice putting and chipping sessions in the evening after work. This doesn't take long, and you can get about 40 shots in 15 minutes. Try the driving range during the noon hour."

For the mental part, Jim says to concentrate on the positive side. "If you think about what can go wrong, it probably will," he says. "Develop confidence and think positively."

## Four Place High In City Golf Tourney Play

Four Sandia Laboratory employees were winners in the City Golf Tournament held in Albuquerque recently.

W. W. Kuhn (2344) was champion of the 4th Flight; O. M. Schroll (2543) was champion of the 6th; R. P. Campbell (3241) finished as runner-up of the 9th; and R. E. McClure (2543) was awarded the consolation prize as 7th Flight winner.

Flights were match play with 36 holes played on the final day of the tourney.

# American Society for Metals To Observe 50th Anniversary

This is another in a series of articles describing activities of member organizations of the New Mexico Council of Technical and Scientific Societies.

The American Society for Metals' history starts in 1913 when the need for such an organization was recognized by founder-member Billy Woodside, a metallurgist in Detroit. From a modest 12-member start, the society has grown to its present 117 chapters and membership of more than 34,000.

ASM was founded to provide a lively means of exchanging technical information with strong emphasis on the engineering and practical aspects of the technology of metals and engineering materials.

The Albuquerque Chapter of ASM was founded in 1954. Eight of the nine past chairmen have been employees of Sandia Corporation. The current membership of 134 is a cross-section of technical people engaged in design, materials, and metalworking activities. The monthly dinner meetings of the chapter feature a technical speaker plus a question and answer session.

"Our regular monthly meetings will resume in the fall," Vincent G. Nelson (1121-2), newly-elected vice chairman, says. "This summer, we are making plans to obtain outstanding speakers, to

sponsor an educational seminar, and to provide a scholarship for a student at New Mexico Institute of Mining and Technology at Socorro."

In the past, the Albuquerque Chapter has sponsored courses and seminars at the University of New Mexico. Last year, some 80 persons attended a four-week course, meeting once a week, in "Metal Fabrication—Ferrous and Non-Ferrous Alloys" which was presented by members of the chapter. "Materials for Nuclear Applications" was a three-day seminar held two years ago at UNM.

National publications of ASM are *Metals Review*, which presents society and industry news, and the monthly *Metals Progress*, an authoritative technical magazine in the metalworking and materials engineering field.

ASM members will celebrate the 50th anniversary of the founding of the Society with the Metals-Materials Congress and Exposition, Oct. 21-25, in Cleveland, O.

Other local officers and chairmen include R. A. Matuszeski (ACF), chairman; LeRoy Morris (Morris Steel and Aluminum Co.), secretary; and A. W. Porter (3341), treasurer. Donald Spatz (1522) is the ASM representative to the New Mexico Council of Technical and Scientific Societies. R. S. Lemm (4230) is the By-laws Committee chairman.

## H. C. Jeblick Heads Albuquerque Chapter Aeronautics Institute

Harold G. Jeblick, supervisor of Field Inspection Division 2341, has been elected chairman of the Albuquerque Chapter of the American Institute of Aeronautics and Astronautics, which includes the Albuquerque and Los Alamos areas. The election took place Aug. 1.

The Institute of Aeronautics and Astronautics was formed in February of this year with the merger of two other organizations, the American Rocket Society and the Institute of Aerospace Sciences. Merger of the local chapters of these organizations took place in May.

Other officers of the local chapter include D. E. Randall (7242-1), vice chairman; E. C. Rightley (7423-2), secretary; A. C. Bustamante (7421-2), treasurer; and W. N. Caudle (7421-2), W. H. Curry (7424), A. Y. Pope (7420), and R. E. Tate (7424-2), council members.



VACATIONING Walter F. Scott (3462) took some excellent photos of the July 20th eclipse of the sun while on vacation in Minnesota. Scotty used a Mamiyaflex camera with an 80 mm lens, plus two sheets of fully-exposed film to serve as a neutral-density filter. The photos show a series of exposures of the sun as the eclipse progressed, a sight many Albuquerqueans missed because of cloud cover obscuring the sun.



—LCDR J. M. Zanetti, Jr.—

## LCDR Zanetti CO of U. S. Navy Intelligence Unit

Lieutenant Commander Joseph M. Zanetti, Jr., was appointed Officer in Charge of Naval Reserve Intelligence Unit 8-1-6 recently. Commander Zanetti is supervisor of Publications Section 3423-1 at Sandia.

He began his service career with enlistment in the Naval Reserve in June 1948 and received his commission as Ensign, USNR, in August 1950. During the Korean conflict, Joe served on active duty from July 1951 to July 1953 aboard the USS Henrico, APA-45, in the Pacific.

He was attached to various reserve surface divisions until September 1961, when he received a change of designator to Naval Reserve Intelligence. Since that time, he has been affiliated with Unit 8-1-6 as executive officer.

## Congratulations

To Mr. and Mrs. James Langenhorst (1411) a son, Ronald David, July 29.

## Educational Aids Applications Due From Employees Taking Full Courses

Sandia Laboratory employees planning to take college credit courses under the Educational Aids Program should file applications as soon as possible, according to Staff Training and Education Division 3131.

Registration at the University of New Mexico is scheduled for Sept. 12-14 and Sept. 12 at the College of St. Joseph. Deadline for submitting the Educational Aids Application (SC-4555-A 11-

61) for both schools is Sept. 5.

Employees who wish to avoid the cashier's line during registration may attach a personal check, for their portion of tuition costs, when submitting their application to their supervisor for approval. A receipt will be sent by Section 3131-2 to the employee indicating that this payment has been received.

Additional information is available from Section 3131-2, Bldg. 300, ext. 45157.



MULTIPLE EXPOSURE of partial eclipse of sun during the afternoon of July 20 was made by Walter F. Scott (3462). This view of the eclipse was seen by spectators in Minnesota, where Scotty was vacationing.

## Sandia's Safety Record

**Sandia Laboratory HAS WORKED 70,000 MAN HOURS OR 2 DAYS WITHOUT A DISABLING INJURY**

**Livermore Laboratory HAS WORKED 601,000 MAN HOURS OR 110 DAYS WITHOUT A DISABLING INJURY**