



F. A. Goss

### F. A. Goss Completes 30 Years Service With Bell System

Frank A. Goss, Jr., was honored with a luncheon at the Alvarado Hotel on the occasion of his 30th recently. His anniversary date was July 15.

Mr. Goss is a division supervisor in 1312. He has been with Sandia Corporation six and one half years, first as a section supervisor in Vacuum Tube Development. Then in February 1955 he was promoted to division supervisor in Components Development.

Mr. Goss received his BS degree in Electrical Engineering from New York University.

He was with Bell Telephone Laboratories from July 1929 to December 1952. As a Technical Staff Development Engineer, Mr. Goss worked with sound picture development in the field of acoustics, the development of broadcasting transmitters, and low frequency quartz crystals used in telephone transmission applications.

He also made feasibility studies and worked on the design and development of airborne radar, bombing and navigation equipment.

Mr. Goss holds patents for processing quartz crystal plates, a mechanical stabilizer for airborne radar antennas, and a position control system.

He is a senior member of the IRE, a professional engineer in New Mexico, and is on the National Military Pyrotechnics committee of the American Ordnance Association.

### W. W. Bledsoe Speaks To Teachers Attending Summer Institute

Mathematical activities of Sandia Corporation were related by W. W. Bledsoe, Systems Analysis Department Manager 5120, in a talk last week to a group of high school math and science instructors.

In his talk Mr. Bledsoe described the operations of the Systems Analysis Department and suggested areas of mathematical training that would help prepare math students to work in industries similar to Sandia Corporation.

# Deserted AFB Serves as Drop Test Range



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## Organization Title And Number Changes Announced for Lab

The following organization title and number changes will be effective Aug. 1, 1959:

R. B. Powell will be Vice President Personnel, 3000. Reporting to Mr. Powell will be the present 4600, 4700, 4800 and 4900 organizations.

- 4600 will become 3100
- 4800 will become 3200
- 4900 will become 3300
- 4700 will become 3400

Except for the Secretarial Services Division, 4623, all other numbers remain the same after the change of the first two digits. Secretarial Services Division will be 3126.

C. W. Campbell will be Vice President Administration, 4000. Organizations 4100, 4200, 4300, 4400 and 4500 will report to Mr. Campbell.

Organization charts will be re-issued before Aug. 1 to show these changes.

## Charles T. McKiernan National Director of Machine Accountants

Charles T. McKiernan (4751-2) has been named a National Director of the National Machine Accountants Association. The association has 140 chapters and 11,000 members. Each chapter is represented by a director.

Purpose of the Association is to educate and promote more efficient use of various machines or automation methods in accounting and data processing.

"Chuck" was president of the local Central New Mexico Chapter last year, which conducted a three hour credit course at St. Joseph's College on Principles of Machine Accounting.

He was graduated from Drake University and then worked on a Des Moines newspaper in the accounting department. He was with Better Homes and Gardens as Subscription Department Manager before coming to Sandia two and one half years ago. He is an IBM 705 Program Analyst here at Sandia.



HIGH SPEED 35mm movie camera, operated by N. L. Richardson (5216), provides additional data for study. This camera can take 1500 frames per second. Normal projection speed slows action.

# Sandia Opens Permanent Office For Tonopah Ballistics Range

Tonopah Ballistics Range will be staffed on a permanent full-time basis by Sandia Corporation personnel, it was announced this week. A. P. Gruer (5260) will head the new department now being established there.

In the past, the range has been used by Sandia for test operations approximately 10 days of each month. Personnel from Salton Sea Test Base operated the range equipment and conducted the tests.

By the end of 1960 some 20 Sandia employees and their families will be located in Tonopah. Sandia's office will be established directly across from the Tonopah

Post Office on Main Street. Mailing address is P.O. Box 871. The Tonopah range is located some 30 miles southeast of Tonopah.

Thirty to 40 additional personnel will be needed to provide maintenance guard duty and other support services for the Sandia facility. It is tentatively planned to contract for these non-technical services and to encourage the employment of local residents wherever possible.

The Tonopah Ballistics Range was established for the AEC in February, 1957. It occupies 625 square miles of the U.S. Air Force Las Vegas Bombing and Gunnery

Range. During World War II airfields mushroomed up around Dalhart and other towns on the Texas plains. After the need for them ended, tumbleweeds began to take root on the crumbling building foundations. Concrete runways played host to only an occasional transient aircraft making a forced landing.

The former Dalhart Auxiliary Air Force Base No. 1 was no exception. Then last fall the AEC leased the facility for use in drop testing inert experimental devices for research purposes. This action was based on the suitability of the area for such tests, accessibility and availability for test purposes.

The range, located 10 miles from Dalhart, is one of three remote ballistic testing facilities designed and operated for the AEC by Sandia Corporation. The other two are at Salton Sea, Calif., and at Tonopah, Nev. Target and instrumentation similar to those at Dalhart will be constructed at Tonopah Ballistics Range, but until this project is completed (about January 1960) the Dalhart Range will be used.

### Temporary Structures

The West Texas Range is dotted with silver Field Test trailers and temporary structures housing the many types of cameras and telemetering equipment used to record data during every drop. A concrete building, used for storage, is the only remaining structure in use dating back to World War II days.

The first series of tests was conducted by the Naval Ordnance Laboratory, Silver Spring, Md. Subsequent drop tests have involved both the Navy and the Air Force. Planes used for the tests at Dalhart take off from Kirtland

A portion of the ground instrumentation is provided by Sandia Corporation personnel under the leadership of W. H. "Bill" Everhart (5216-3). Although no Sandia personnel are permanently assigned to Dalhart, a scheduled

(Continued on Page 3)



AGREEMENT SIGNING CEREMONIES for representatives of Sandia Corporation, Metal Trades Council, Office Employees International Union, Local 251, and the Federal Mediation and Conciliation Service are pictured here. Front row (L to R): Josephine Norwood, Secretary-Treasurer, OEIU; A. A. Amato, President, OEIU; E. C. Peterson, Labor Relations Department Manager; H. E. Burrell, President, Metal Trades Council. Back row: E. L. Gunn and H. D.

Large, OEIU Negotiating Committee; E. J. Peterson, Vice President, Metal Trades Council; G. H. Hillenbrand, FM&CS, San Francisco; F. E. Morton, International Vice President, OEIU; G. A. Parker, Director, Industrial Relations; J. C. Sitts, Secretary-Treasurer, Metal Trades Council; W. H. Chandler, Supervisor, Labor Relations Division; H. H. Atkins, FM&CS, Albuquerque. The new agreements cover working conditions for next two years, ending July 5, 1961.

Buildings and facilities (excluding instrumentation) at the range have cost approximately \$600,000. At present these consist of a central control building, utility buildings, a weather station, a generator building, warehouses, instrumentation and camera stations and rocket launching sites.

### To Enlarge Range

The AEC plans to enlarge the range by adding a large "X" shaped concrete target pad, 21 camera and instrumentation stations, a metal maintenance building and additional roads. Bids for construction of these additions have been solicited by the U.S. Atomic Energy Commission.

The Tonopah Ballistics Range is used by Sandia to test weapons ballistics characteristics and fuzing and firing systems. Other tests involve the use of high altitude rockets in research studies of the upper atmosphere. These rockets have reached altitudes of 100 miles.

No nuclear explosions will be conducted at the Tonopah Range.

### Instrumentation

Optical instrumentation at the range includes four types of cameras and tracking telescopes. These instruments are used to track and record the performance characteristics of various ballistic shapes drop tested at the range in order to secure information concerning impact, trajectory and various aerodynamic features.

The instruments are also used to follow and record the ascents and performances of the rockets fired at the range. None of these rockets or ballistic shapes have or will contain radioactive material while being tested at the Tonopah Range.

## Weddings and Engagements

Mr. and Mrs. Louis Lucero are at home at 1101 Pear Dr. SW following a recent three-week honeymoon in Las Vegas, Utah and Colorado. Mrs. Lucero is the former Adelina Sanchez (1611).

The couple was married at St. Anne's Church June 20.

Adelina has been employed at Sandia almost seven years. Her husband is in Civil Service at Kirtland Air Force Base.



Mrs. Lucero Miss Beatrice

Announcement of the engagement of Carol Ann Beatrice (2651-3) to W. M. Harger of Wichita, Kans., was made recently. The couple plans to be married next year.

Carol has worked at Sandia two years.

Gail Williams (4623) will be married Aug. 22 to Jerry E. Wood of Louisville, Ky., in the First Baptist Church of Albuquerque.

Gail has worked at Sandia one and one half years. She is a graduate of Southwestern State College, Weatherford, Oklahoma.

Mary Rose (8114-2) and Bob Crow (8212-4) were married July 3 in Carson City, Nev.

Bob joined Sandia in September 1954 and Mary has been with Sandia since November 1957.

Dorothy A. Matlack (4723-1) was married in Albuquerque on July 15 to Edd Lee Pearson of Waco, Texas. The couple is now at home at 415 Charleston NE.

### M. S. Montano Named Air National Guardsman of Year

Melvyn S. Montano (2251) was named Airman of the Year during Air National Guard Summer



Melvyn Montano

Camp held recently at Kirtland Air Force Base.

He was presented with a plaque at parade ceremonies followed by a luncheon with Governor John Burroughs and National Guard officers at the Kirtland Officers Club.

### New Homes

It was moving day recently for Don Barack (4252-5) and his family who are now living at 3404 Parsifal NE.

A new home owner in 4211 is Bill May who has moved to 336 Erbbe NE.

C. P. Mortem (2722) and his family have moved into their new home at 3716 Andrew Dr. NE.

### Need Bowling Team

The Sandia Base Major Bowling League has an opening for a team for the 1959-60 bowling season. It is an 865 maximum scratch league and bowls at San Mateo Lanes on Wednesdays.

All members of the league must be Sandia Corporation or AEC employees. Anyone interested in joining the team should contact Gene Daniels (4413-2), ext. 52164.

### Toastmaster Officer

Roger Johnson (4252-5) has been appointed Area Governor for Area I of the Toastmasters International. The Area is made up of all the clubs in Albuquerque, Grants and Gallup.



## Tribute to Frederick J. Given

This Board wishes to record its sorrow on the occasion of the untimely death on June 25, 1959, of Mr. Frederick J. Given, by recording in its minutes the following:

We of Sandia pay tribute to Frederick J. Given, who came to the Corporation in 1952 after more than 26 years of service at Bell Laboratories. First, as Director of Apparatus Engineering, he organized and supervised the development of components which contributed substantially to the nation's atomic weapons programs. Later, as vice president, he applied his broad experience and accumulated wisdom to act and administer overall policy in the operations of the Corporation.

Although Fred came to Sandia in the latter years of his professional career, he accepted the challenge of building and guiding a young organization with vigor and with high sense of duty. He established for himself a reputation for always taking a quiet, rational approach to all problems. We shall always remember Fred for his many contributions to Sandia Corporation and especially for the courteous, gentlemanly manner in which he did his part. We shall cherish the memory of a warm friend and associate.

Adopted unanimously by the Board of Directors Sandia Corporation July 7, 1959

## Report on the Annual Report

A classified document, the report of the work done in the past twelve months, is being prepared by Sandia Corporation's Technical Information Division.

Few Sandia employees will see this report — it goes to the Sandia Corporation Board of Directors and eventually into the hands of the U. S. Atomic Energy Commission. There, due to the fact that it contains highly sensitive information, it will be placed in a vault to be withdrawn by qualified persons when information is needed.

Thus, due to security regulations, Sandia cannot undertake the time-honored process of taking an annual report apart, piece by piece, for the information of employees and an interested public. The details of the document will never be known generally.

However, a letter from K. F. Hertford, Manager of the Albuquerque Operations Office of the AEC, gives us a good clue as to the tone of that report. The letter, a Commendation for Production Performance, which was received by J. P. Molnar, read:

"The weapons production system has essentially met the requirements established for the fiscal year 1959. The system has responded magnificently in the face of major difficulties. There were complicated changes after production had started and lead times were reduced in many cases. Yet, in spite of all the handicaps, **the job has been done**, and we begin fiscal year 1960 with a feeling of pride and confidence.

"These results would not have been possible without the cooperation and excellent coordination between all members of the weapons production family and the intense desire for accomplishment of every person involved in the entire integrated weapons complex.

"In recognition of this outstanding performance I would like to express my personal thanks and congratulations to you and each member of your organization."

From the words of Mr. Hertford's letter we may assume that the Annual Report carried good news.

That means a job well done.

## Slide Rule Speculation Wins Prize in Nevada Count Pennies Contest

Old time drug stores frequently had in their window a bulging jar and a notice "Win a prize, guess the number of pennies (or beans or marbles) in this jar." Such items of early Americana are still found in Tonopah, Nev. S. A. McCollum and D. G. Beatson (5216) were in the ex-mining town recently and saw a jar in a window chock full of pennies and bearing the usual enticing notice. The Sandians pulled out slide rules and tape measures. After allowing for size of the jar, air space and area occupied by each penny, they came up with their educated guess of \$79.22.

Back in Albuquerque a few days later they received a check by mail—the jar had contained 7,903 pennies.

### Welcome Back

Department 4420 welcomes Frances Hale (4431-1) back after an extended illness.

### Climbs Tennis Ladder

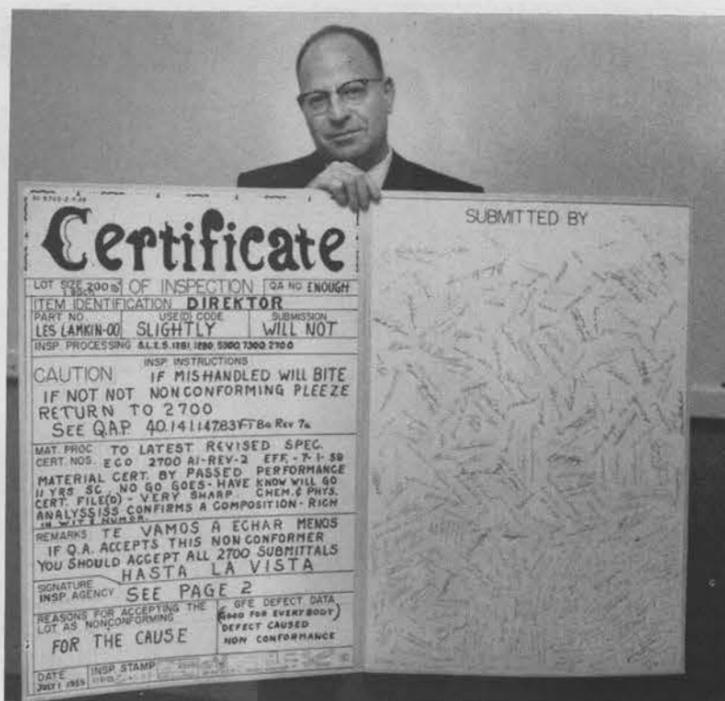
Lee Hollingsworth (8120) has moved up fast in the Livermore area Recreation District Men's tennis ladder, going from 18th to 5th position. He scored three straight victories in one week, defeating Pat Gildea (8153-2) and Howard Reed (8152-2) by scores of 6-3, 7-5, and 6-3, 6-4, respectively.

### Wedding Anniversaries

Mr. and Mrs. G. C. Beatrice (4412-1) will celebrate their 25th wedding anniversary on August 23. They plan to have their vows renewed back in Massachusetts on that date.

### Sick Vacation Note

Dale Young (5126) has returned to work in the Computer and Numerical Analysis Division 5126 after a vacation that turned into a stay in the hospital. He was enjoying the cool mountain air around Pagosa Springs, Colo., when he became ill. His wife drove him back to Albuquerque with a severe "strep" throat. "The mountain vacation has been postponed until next year," he said.



L. E. "Les" Lamkin  
"We're going to miss you"—2700

## 'Certificate of Inspection' Goes With Lamkin Transfer

When L. E. "Les" Lamkin, former Director of Inspection, transferred to become Director of Quality Assurance he made the move complete with certificate of inspection.

One of the duties of Inspection 2700 is to submit materials to Quality Assurance agencies at Sandia and manufacturing locations throughout the company. Each submittal is accompanied by

a certificate of inspection.

When Les moved from 2700, co-workers presented him with a certificate with more than 350 signatures—from all parts of the U.S.—telling him "te vamos a echar menos." Translated, it reads, "We're going to miss you."

Modeled after the inspection form, Mr. Lamkin's certificate proclaims "material certified by passed performance . . . If QA accepts this nonconformer (the organization) should accept all 2700 submittals."

The certificate has been made into a two part plaque which is displayed prominently in Mr. Lamkin's office. "I treasure the sentiment expressed by so many good friends in the 2700 organization," he said.

### Get Well Wishes

Department 4740 wishes a rapid recovery to Howard Keever, (4743-2) who is in the hospital.

## Congratulations

### Born to:

Mr. and Mrs. Mike Silva (4514) a son, William Edward, on July 5.

Mr. and Mrs. W. H. Everhart (5216) a daughter, Laurie Beth, on July 10

Mr. and Mrs. J. T. Boag (1322-2) a son, Scott Allen, on June 26. Mr. and Mrs. Louis Nielsen (Joan worked in 8224-2) a daughter, Lorie Jo, on June 25

Mr. and Mrs. Charles Reneau (Barbara worked in 8212-3) a son, Bruce Leslie, on July 14.

Mr. and Mrs. David R. White (4252-2) a daughter, Linda Marion, on July 15.

## Sympathy

To Ida Herbert (8212-3) for the death of her sister and brother-in-law in an automobile accident in Idaho.

To Ken Shriver (8163-2) for the death of his mother in Norfolk, Neb., on July 12.

To Robert E. Quinlan (1322) for the death of his wife in Albuquerque on July 15.

## Take a Memo, Please

One of the major factors contributing to accidents is fatigue. Fatigue is not necessarily physically induced. It may be a result of emotional stress; of worry over what we consider insoluble problems. All of us have problems, but letting them get out of hand has an adverse effect on our minds.



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NEW WIND TUNNEL TANK takes form as welders assemble sections of the sphere. A second new tank will also be installed and both should be completed by mid-August. Contractor for the project is Lluts Construction Co. Pittsburgh-Des Moines Steel Co. is installing the 10,000 cu. ft. vacuum tanks. They will be utilized as part of Sandia's new hypersonic wind tunnel facility now being built in Bldg. 865. Randy Holt (4543) is project engineer.

**Pilot Group Named**

# Tech Development Program Started for New Staff Members

A pilot program of advanced training for selected new technical staff members began at Sandia Corporation this month.

The program will enable new technical staff members to acquire additional education and training in modern analytical methods and basic scientific concepts. It is expected that this additional training will help Sandia Laboratory accomplish its long range technical mission.

Twenty new college graduates with bachelor degrees in electrical and mechanical engineering and mathematics will participate in the Pilot Program.

**Half Time at UNM**

These employee-students will spend half time in University of New Mexico graduate work and half time with job assignment and other Corporation training.

The program is being administered by the Personnel Research, Training and Education Department, 4630.

Heavy emphasis will be placed on graduate level mathematics, statistics and modern and nuclear physics. Advanced work in electrical and mechanical engineering will also be part of the program. While taking this advanced train-

ing, participants will be able to accumulate resident credits toward an advanced degree at the University of New Mexico.

**Spend Own Time**

In addition to the company time provided for classes and study, it is expected that participants will give a large amount of their own time in pursuing the program. It is anticipated that the new program will cause no changes to be made in the present Educational Aids Program.

During July and August those participating in the program will be taking Applied Advanced Calculus I, taught by D. R. Morrison (5126).

Beginning with the fall term at the University the participants will be taking nine credit hours in Applied Advanced Calculus II, Atomic and Nuclear Physics and an elective in mechanical or electrical engineering.

A decision will be made later this year on whether or not a similar program will be continued for new technical college graduates hired in the future.

**Pilot Program**

The Pilot Program was developed by the Technical Development Committee. Members are: G. A. Fowler (5000), chairman, J. W.

## Sandia All Star Game Tonight on Diamond B, 7 p.m.

Inter-League All-Star softball game will be played tonight at 7 p.m. on Diamond "B". Teams will be composed of outstanding players chosen from the American and National Leagues. Three prayers will be represented from each team.

Members and the teams they represent are as follows:

- AMERICAN LEAGUE**  
**Pitchers:** Roy Hanson (5500)  
 Dale Landis (4400)  
 Cliff Taylor (4200)  
 Mel Otero (5500)  
 Julian Lovato (4400)  
 George Kinoshita (1200)  
**Catcher:** Clyde Hughes (4400)  
**1st Base:** Ken Flynn (5500)  
 Tony Garcia (4200)  
**2nd Base:** Jim Kelly (5500)  
**3rd Base:** Jim Fjelseth (4700)  
 Don Johnson (1600)  
**Infielders:** George Duffield (5200)  
 Dick Coleman (5500)  
 Paul Bontempi (4400)  
**Outfielders:** Jim Manweller (1200)  
 Vic Roh (1200)  
 Bob Statler (5200)  
 Ken Ponsler (1600)  
 Karlin Boultinghouse (4400)  
 Jim Johnson (5200)  
 Max Newsom (1200)  
**Managers:** Bob Bailey (5500)  
 Bob Evans (4400)
- NATIONAL LEAGUE**  
**Pitchers:** Cliff Rudy (4600)  
 Dan Grim (2500)  
**Catcher:** Gordon Ross (4600)  
**1st Base:** Tom Thompson (4400-11)  
 Don Roth (1200)  
 Ken Medearis (1200)  
**2nd Base:** L. W. Schultz (1400)  
**3rd Base:** Frank Duggin (4300)  
 Bill Doyle (4600)  
**Infielders:** Vic Sirwinski (1400)  
 Robert Ledbetter (4100)  
 Robert Martinek (2500)  
 Ron Lawwill (1400)  
**Outfielders:** George Banos (4100)  
 Jack Thompson (4100)  
 John Monko (4400-11)  
 Paul Spencer (4400-11)  
 George Chandler (2500)  
 Ron Smith (2500)  
 Max Gasta (1400)  
 Jim Winter (4600)  
**Manager:** Art McMullin



"BOMBARDIER" W. A. Crosby (5216-3) releases the test vehicle by his command from the ground when profile plotter indicates the desired release point has been reached in pinpointing target.

Continued from Page One . . .

## Drop Test Facility

drop requires 20 persons to operate the range stations.

Fifteen camera stations are strategically located to provide data requested by the design organizations. Cameras at eight of the positions are automatically operated.

**Radiosonde Receivers**

Information is also obtained from ground meteorological radiosonde receivers and anemometer stations located along the flight path. These stations record wind conditions in the target area at time of impact.

Telemetered information is received at two antennas near the flight path and relayed to a control from the airborne transmitter in the experimental device. This information is concerned primarily with the internal system and operation of components during the drop.

All of the 20 stations at the Dalhart Range supplement each other

in such a way as to provide proof of performance during field testing under given operating conditions.

The stations are timed and operated from a control center by test controller Bill Everhart, who also coordinates all stations with the aircraft's action.

**New Testing Development**

The test controller has a new range field testing development to aid him. It is a profile plotter controlled by a modified Askania cinetheodolite equipped with azimuth and elevation angle resolvers. This gives the test controller a visual record and time plot of the aircraft's altitude and ground position in relation to the target. The profile plotter was developed by Field Testing organization in 10 days to meet a special need at the Dalhart Range.

All film exposed during the test drops is returned to Albuquerque for processing and for data reduction.



FLIGHT ANALYZER camera is operated by V. E. Baker (5216) during test drop at Dalhart Range. Some cameras are automated.

### Burl L. Brown to Retire End of July After 11 Years Service

Retiring at the end of July will be Burl L. Brown (4573), who has worked at Sandia Corporation a little over 11 years.

He plans to take it easy for a while before deciding what to do. "I may go back on a ranch since I spent so many years on one," he said. Mr. Brown also hopes to do a lot of hunting and fishing.

He and his wife live at 625 Bryn Mawr Dr. NE. They have two sons and two daughters and two grandchildren.



Class Portrait of Sandia's Pilot Group in Technical Development Program

## Taped Lectures Keeping Technicians 'Out of Dark' While Processing Film

Working in a darkroom much of the time doesn't leave photographers and photo lab technicians with much time to read about the latest technical developments in their field, but they're hearing the information just the same.

### Promotions

Gerald T. Gay (4233) to Wireman  
 Donald D. Butts (4233) to Wireman  
 Marion Brown (4575) to Trans. Dispatcher  
 Henry F. Bacon (8225) to Stockkeeper  
 Regina P. Wadach (8114) to Record Clerk  
 Margi G. Balas (8161) to Record Clerk  
 June D. Tomsic (8212) to Stenographer Clerk  
 Sarah E. Thomsen (8232) to Document Clerk  
 Anna M. Isham (8232) to Document Clerk  
 Marilyn M. Smithart (8232) to Document Clerk  
 Michael F. Truitt (8114) to Draftsman  
 John F. Smatana (1625) to Staff Asst., Tech.  
 Evelyn A. Foote (8212) to Staff Asst., Admin.  
 Thurman Foreman (4574) to Janitor  
 Mary G. Astin (4762) to Plate Maker  
 Richard M. Kear (4762) to Bindery Operator  
 C. E. Justice, Jr. (4233) to Assembler  
 Gloria H. Mickelson (4623) to Stenographer  
 Joann H. Flinchum (4623) to Typist  
 Mae K. McGoorty (4623) to Typist  
 Lillian L. Jones (4623) to Secretarial Steno  
 Janice H. Brown (4623) to Typist  
 Patricia G. Smith (4623) to Secretarial Steno  
 Loyd L. Tackett (4761) to Tab. Equip. Optr.  
 Richard Chavez (4233) to Camera Operator  
 I. Laurene Dubuque (5125) to Data Red. Clerk  
 Paul J. Cruz (4153) to Accountant  
 Jessie E. Oden (8225) to Stockkeeper  
 R. W. Kuesthardt, Jr. (8223) to Molder & Assembler  
 Paul R. Coronado (8223) to Molder and Assembler  
 Domenico Tavone (8222) to Boiler Plant Optr.  
 Carolyn J. Johnson (8212) to Steno Clerk  
 D. M. Martinell (8212) to Steno Clerk  
 P. A. Beavers (8212) to Secretarial Typist  
 Joan L. Kincaid (8212) to Employment Clerk  
 Ruth M. Burns (8232) to Document Clerk  
 Margaret A. Zumwalt (8233) to Record Clerk  
 Harriet D. Kenney (8212) to Secretary  
 Imogene R. Kelly (8212) to Report Clerk  
 James R. Rozell (4766) to Document Clerk  
 Mary C. Ayen (8161) to Prod. Release Clerk  
 Jack E. Cannon (4762) to Ozalid Operator  
 M. P. Chavarria (4212) to Record Clerk  
 Betty L. Furlow (4623) to Secretarial Typist  
 Lorrene A. Terrill (8212) to Employment Clerk  
 Charles T. Romano (8223) to Shop Clerk  
 M. Donna Bourlon (4632) to Steno Clerk  
 Larue W. Watson (5512) to Message Center Equip. Optr.  
 Theodore K. Taylor (8232) to Ozalid Operator  
 Karol J. Scott (8212) to Record Clerk  
 Anita E. Padilla (2700) to Secretary (Admin. & Tech.)  
 Joseph F. Genoni (8234) to Order Analyst  
 Mafreda R. Mochabee (5512) to Record Clerk  
 W. Sue Evans (4344) to Steno Clerk  
 Catherine Banks (8213) to Staff Asst. (Admin.)  
 Alvin T. Plant (4762) to Ozalid Operator  
 Beverly L. Flowers (2722) to Record Clerk  
 Barbara R. Morgan (4623) to Record Clerk  
 M. Amy Gonzales (1611) to Data Red. Clerk  
 E. J. Marcellin (8161) to Prod. Release Clerk  
 Hildegarde E. Cuts (8161) to Prod. Release Clerk  
 Bert A. Ball (1625) to Laboratory Assistant  
 Elvira M. Antuna (2540) to Secretary  
 J. L. Sheldon (8114) to Service Clerk  
 Ruth I. Schooley (2600) to Secretary (Admin. & Tech.)

Since the first of the year the Photography Section 4762-1, headed by W. F. "Wally" Boyes, has been receiving monthly tape recordings from the Brooks Photography Institute in Santa Barbara, Calif. These contain 30 minute digests of articles in professional photography magazines and discussions of new techniques.

These tapes are played in the darkroom while the men work. "We repeat them enough times," Wally explained, "so that the men on the different shifts or out on assignment have an opportunity to hear them. Some of the photographers have also borrowed the tapes to play on their home recorders."

Although not all of the suggestions have application to the type of photographic work done here, helpful ideas have been obtained from the tapes.

Wally heard about the tapes at a photographers convention last year and decided to try out the idea. The tapes have been well received.

## Sandia Golfers Do Well in Albuquerque City Tournament

Maynard "Bill" Cowan (5111) won a hard-fought victory for the second flight crown in the recent City Golf Tournament. The closely-contested match went 23 holes before Bill parred the 5th hole to win.

Another winner was Dick Kidd (2533) who won the first flight consolation trophy.

Sandians who qualified for the championship flight with scores under 79 were John Olson (4424), Gil Lovato (4233), Jim Leonard (1247) and Jack Canute (5251).

Sandia Corporation's team placed fourth in team competition with a 78 average, which was the best showing Sandia has ever made. Representing Sandia were Kidd, Lovato, Leonard and Larry Smith (5111).

## Harry E. Basey Goes On Retirement July 1 After 11 Years Service

Harry E. Basey retired the first of July after working at Sandia Corporation almost 11 years. He had worked in several organizations at Sandia, mostly with property, and was in Division 4516 at the time of his retirement.

As for future plans, he is going to take care of his other business interests, and devote a lot of time to spectator sports.

Mr. Basey and his wife live at 1339 San Mateo SE. They have three children and three grandchildren.

## Ramon M. Martinez to Live in Mexico After Retiring This Month

When Ramon M. Martinez retires at the end of this month, he's traveling to Parral, Mexico, where he plans to operate a small business. "If present plans work out, I'll be down there at least two years," Mr. Martinez said.

A Corporation employee for almost seven years, Mr. Martinez worked in Division 4518, Housing Maintenance.

He and his wife live at 148 Pueblo Luna NW. They have one son and four grandchildren, who all live in Albuquerque.

While in Mexico he plans to do some hunting and fishing, one of his favorite pastimes.

## Benjamin F. Stricker Plans Traveling After Retiring on July 31

Benjamin F. Stricker, a machinist in 4252, will retire at the end of July after six and one half years at Sandia.

He and his wife plan to remain in Albuquerque at 832 Ortiz SE. "We'll probably do some traveling too," Mr. Stricker said.

He has two daughters and four grandchildren, all living in Albuquerque. Originally from Milwaukee, Wis., Mr. Stricker decided to come to Albuquerque because his daughters were living here.

**No job is so important and no service is so urgent that we cannot take time to perform our work safely.**



FLAG OF LOCAL SOCIETY of Sons of the American Revolution, awarded for greatest increase in membership nationally one year, is unfurled by James Marsh (left) and H. D. Finch, SAR officers.

## Employees Record History As Sons Of American Revolution Members

This is another in a series of articles telling about community activities of Sandia Corporation employees.

Historical research and preservation of records of service, documents, relics, and landmarks are among the regular activities of the Sons of the American Revolution.

The New Mexico Society was formed in 1908 and since then has united and promoted fellowship among the New Mexico residents who are descendants of the early patriots.

Currently Don Dreesen (5522) is treasurer of the New Mexico Society. H. D. Finch (5254-1) is the secretary and Franklin Barnett (4123) is a past secretary. James Marsh (4723-2) is president of the Albuquerque chapter which was formerly headed by Wilson Maglidd (4760). C. W. Dickinson (4130) is the chapter program committee chairman and serves on the Board of Managers of the New Mexico Society.

Mr. Dreesen is also in charge of an SAR committee which is working to form a joint council of all the patriotic-historical societies in the Albuquerque area.

The objectives of this joint council would include the establishment in Bernalillo County of public libraries, museums, and monuments or markers for commemorating, perpetuating and publicizing noteworthy historical

events. Other activities would include joint observances of patriotic or historical nature and joint programs to encourage and develop patriotism and the study and teaching of American history and ideals.

The Albuquerque chapter cooperates with local American Legion posts in sending a delegation to New Mexico Boy's State. Annual awards to outstanding R.O.T.C. students at the University of New Mexico, New Mexico State University and New Mexico Military Institute are presented by the New Mexico Society. The latter recently joined with other New Mexico historical societies in sponsoring the establishment of a New Mexico Civil War Observance Commission.

### Golf League Standings

End of First Round		Points	L
"A" League	W		L
Team 1	17	4	
Team 2	17	4	
Team 3	14	7	
Team 7	10 1/2	10 1/2	
Team 8	8 1/2	12 1/2	
Team 5	7 1/2	13 1/2	
Team 4	6	15	
Team 6	3 1/2	17 1/2	
"B" League			
Team 6	17	4	
Team 2	15	6	
Team 3	14 1/2	6 1/2	
Team 1	11	10	
Team 5	8 1/2	12 1/2	
Team 8	7 1/2	13 1/2	
Team 4	5 1/2	15 1/2	
Team 7	5	16	
"C" League			
Team 1	17 1/2	3 1/2	
Team 6	14	7	
Team 5	12	9	
Team 3	11 1/2	9 1/2	
Team 4	11	10	
Team 2	7 1/2	13 1/2	
Team 7	6 1/2	14 1/2	
Team 8	4	17	

## Get-Acquainted Party Planned by Sanado Club Tuesday, August 4

A "Getting Acquainted Party" is scheduled for the Sanado Club's meeting, Tuesday, Aug. 4, from 2 to 4 p.m. at the Coronado Club. Members and their guests will be served punch and cookies from tables decorated with flags and flowers representing their home states.

Mrs. Robert DeVore is general chairman for the occasion with members of her committee being Mesdames E. T. Roman, C. D. Broyles B. N. Pinkham, H. R. Shelton, R. E. Williams, J. E. Moore, J. R. Harrison, L. Hurford and R. R. Sullivan.

Mrs. J. C. Hart is in charge of arrangements with Mrs. T. L. Pace and Mrs. W. E. Caldes acting as hostesses for the afternoon event. The Sanado Garden Group, under Mrs. J. B. Ayres, is making flower arrangements for the meeting.

## Welcome Newcomers

July 6-17

- Albuquerque**  
 Laverne M. Carruthers ..... 4623  
 Vincent A. Dalgetty ..... 4574  
 B. Jean Engle ..... 4623  
 Roy G. Fitzgerald ..... 1622  
 Jerry D. Geist ..... 5521  
 \*Cynthia M. Harris ..... 4752  
 April E. Holladay ..... 5513  
 Norman L. Knudsen ..... 2532  
 Donna L. Mitchell ..... 4623  
 \*Mary Ellen Petrini ..... 4623  
 Dorothy B. Postlethwaite ..... 4623  
 Alice S. Segrist ..... 4623  
 James A. Skidmore ..... 4511  
 Paul M. Stanford ..... 4122  
 \*Lois L. Sullivan ..... 4721  
 \*Denotes Rehires
- California**  
 \*Ernest L. Parker, La Mesa ..... 4763
- Georgia**  
 James A. Dooley, Atlanta ..... 5243
- Illinois**  
 David C. Barham, Chicago ..... 5151  
 Robert K. Pace, Chicago ..... 4422
- Montana**  
 Carl J. Curtis, Bozeman ..... 5523  
 Robert D. Fellerhoff, Bozeman ..... 1624
- Virginia**  
 Hugh M. Feather, Roanoke ..... 1610  
 Charles K. Lumpkin, Richmond ..... 4723  
 \*Denotes Rehires
- W. R. Parker from 4254-4 to 4254-2  
 W. H. Seelbach from 4254-2 to 4254-4  
 M. A. McCutchan from 4611-2 to 4632-1  
 R. R. Beach from 2552-2 to 2541-1  
 J. O. Davis from 1284-1 to 2552-1  
 F. A. Baczek from 2242 to 2227  
 F. E. McGillicuddy from 2241 to 2242  
 W. O. Smitha from 2243 to 2241  
 J. P. Mahoney from 2227 to 2243  
 R. C. Mueller from 4332-2 to 4315-1  
 A. W. Raley from 5544-2 to 4514-3  
 T. L. Daniel from 4611 to 4613  
 W. L. Martin from 4613 to 4611  
 E. J. Stymiest from 4315-1 to 4742-2  
 L. A. Dunn from 1284 to 1222  
 P. Syroid from 1611 to 1284  
 E. H. Copeland from 1471 (1321) to 1611  
 J. P. Ford, Jr. from 1247 to 1321  
 J. W. McKiernan from 1283 to 1247  
 P. F. Jones from 1218 to 1283  
 E. L. Harley from 5311 to 1218  
 G. H. Mauldin from 1263 to 1314  
 J. J. Marron from 1263-1 to 1314-1 (Functional)  
 J. W. Grear from 1432-1 to 1432-4  
 F. Hurford from 1451-1 to 1451-2  
 L. A. Small from 5533-1 to 5532-4  
 E. C. Hirt from 5546-2 to 5544-2  
 M. C. Schiess from 1462-1 to 1627-1  
 N. J. Eich from 1462 to 1627  
 G. V. Voids from 1462-2 to 1627-2  
 F. H. Schneider from 4742-3 to 4332-2  
 C. Davidson from 4361 to 4582  
 C. S. Stack from 4212 to 4211  
 B. D. Neal from 4582 to 4212  
 E. L. Bolton from 4211 to 4361  
 C. H. Sprout from 4766-1 to 4764-1  
 W. K. Cox from 4766-3 to 4766-1  
 E. I. Bruce from 1461 to 1311  
 E. V. Forsman from 1461-1 to 1311-1  
 F. D. Hess from 1461-2 to 1311-2  
 F. A. Goss from 1463 to 1312  
 H. E. Vaiden from 1452 to 1432  
 C. E. Sandy from 1452-1 to 1432-1  
 E. F. Ehrman from 1452-2 to 1432-2  
 R. E. Hampy from 1452-3 to 1432-3  
 J. R. Holpp from 5535 to 5311  
 R. W. Crain from 1456-2 to 1423-2  
 J. R. Ames from 1456-3 to 1423-3  
 B. J. Lawrence from 1456-4 to 1423-4  
 R. C. Reineke from 1451 to 1431  
 A. F. Hurford from 1451-2 to 1431-2  
 L. D. Swanson from 1451-3 to 1431-3  
 C. H. Bidwell from 1454 to 1421  
 C. R. Alls from 1455-2 to 1422-2  
 R. H. Berg from 1455-3 to 1422-3  
 L. M. Melick from 1455-4 to 1422-4  
 N. Sannella from 1455-5 to 1422-5  
 G. W. Rodgers from 1456 to 1423  
 J. Stein from 1463-2 to 1312-1  
 R. D. Wehrle from 1464 to 1313  
 A. M. Hill from 1464-1 to 1313-1  
 A. F. Beck from 1464-2 to 1313-2  
 A. C. Schwarz from 1464-3 to 1313-3  
 G. O. Folkins from 1471-1 to 1321-1  
 R. S. Pinkham, Jr. from 1471-2 to 1321-2  
 R. P. Stromberg from 1473 to 1322  
 A. E. Winblad from 1473-1 to 1322-1  
 L. W. Schulz from 1472 to 1331  
 R. E. Fox from 1472-1 to 1331-1  
 T. H. Reed from 1472-2 to 1331-2  
 R. A. Erickson from 1472-3 to 1331-3  
 K. L. Gillespie from 1474 to 1332  
 W. G. Levy from 1474-1 to 1332-1  
 H. F. Devaney from 1474-2 to 1332-2  
 R. F. Ashmore from 1474-3 to 1332-3  
 R. L. Maxwell from 1474-4 to 1332-4  
 A. P. Gruer from 5210 to 5260 (Temporary)  
 B. G. Edwards from 5214-1 to 5261-1 (Temporary)  
 J. H. Banker from 5214-2 to 5262-2 (Functional)  
 J. G. Hawley from 5214-3 to 5262-3 (Functional)  
 R. S. Millican from 5214 to 5262  
 M. D. Tucker from 4131-3 to 4131-1  
 E. L. Gunderson from 2221-3 to 4742-3  
 H. G. Pierce from 4152-2 to 4111-2  
 B. G. Duncan from 4153-1 to 4152-2  
 J. C. Laffoon from 2232-3 to 2221-3  
 T. F. Lonz from 4761-1 to 4131-3  
 W. B. Davis from 4131-1 to 4153-1



WINNERS—At Livermore the 8100 softball team defeated 8200 10-6 in an inter-organization game June 23. Front row (L to R): Mike Ferrario (8114-1), Bob Keller (8114-1), Dave Lange (8116-2), team manager, Bill Guntrum (8153-1), Harry Far-

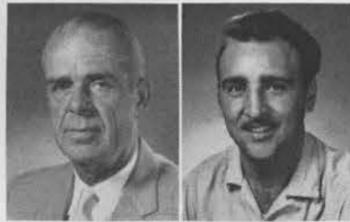
mer (8116-3), and Bob Verdier (8141-1); second row, Jack Simpson (8114-1), Roy Tackett (8162-1), Jim Wright (8162-3), Ed Daus (8141-1), Cornell Linerud (8163-1), Lee Hollingsworth (8120) and Bob Eisele (8114-2). It was a hard fought victory.

# Sandia Lab Service Awards

## Ten Year Pins



William E. McDonald 2225 July 25, 1949  
F. E. McGillicuddy 2241 July 25, 1949



Clyde J. Northrup 5252 July 25, 1949  
Louie E. Armijo 2551 July 26, 1949



Lawrence E. Denison 4575 July 26, 1949  
Carl E. Hildebrandt 5214 July 26, 1949



Leslie H. Minnear 5222 July 26, 1949  
Maury N. Orrell 4842 July 27, 1949



Edgar R. Thompson 1461 July 28, 1949  
Raymond L. Boase 4514 July 29, 1949



Edward V. Kubiak 2533 July 29, 1949  
Vern R. Morrison 4842 Aug. 1, 1949



Robert M. Hawk 5532 Aug. 2, 1949  
Clarence R. Ray 4516 Aug. 2, 1949



Julian Perea 2223 Aug. 1, 1949  
John J. Sandelich 5542 Aug. 1, 1949



Dorothy A. Belmore 4723 Aug. 3, 1949  
Benjamin F. Fuller 2226 Aug. 3, 1949

## Five Year Certificates

July 25-Aug. 7

Ralph J. Edaburn 4252, Russell W. Frame 5231, M. J. McLaughlin, Jr. 2232, Melton B. Rushing 4422, Robert W. Gray 2542, Johnny R. Chavez 4573, Charles Winter 8141.

Mary A. Webster 4623, Warren C. Schaefer 4742, Jean P. Naughton 4721, Leroy G. Rainhart 1625, Charles H. Carlson 1452, C. O. Erickson 8131, Robert L. Stokes 2562.

Paul Greenblatt 4511, Benjamin F. Davis 5214, Friend L. Skinner 8123, A. Morris MacGibbon 4512, Walter L. Nuffer, Jr. 1225, Andrew J. Fry 2234, Robert V. Neighbors 5535.



Juan J. Tafuya 2241 Aug. 3, 1949  
Elmer L. Ford 1452 Aug. 4, 1949

## Livermore Lab Doctor Crew Member on Yacht In Race to Hawaii

When the Tasco II, a 48-foot cutter, set sail from Los Angeles on July 4 in the TransPacific-Honolulu Yacht race, one of her eight man crew was Dr. Max W. Briggs, consulting physician at the Livermore Laboratory.

Winds willing, the Tasco II will reach Hawaii in 10 to 14 days. The fleet of some 40 racing yachts will spend a week in the Islands before sailing back to the mainland.

The Yacht is owned by a Bay area businessman and the crew members are all volunteers. Dr. Briggs won his berth on the Tasco II by virtue of years' experience as a yachtsman. He and another doctor are partners in a 28-foot Ketch. They've raced for several years in the San Francisco Bay and in both 1957 and 1958 were season's champions in Division 14 of the San Francisco Yacht Racing Association.

Dr. Briggs' wife plans to fly to Hawaii and meet him there for the week of yachting festivities.

## Gunner Scholer Makes Visit to Native Denmark

A first-hand report on Denmark, a bustling little country on the cold war front lines, was given by Gunner Scholer (8142-2) on his return from a recent visit to Copenhagen.

This was Gunner's first trip back to Denmark since 1951. He left there in 1941 and came to the United States shortly afterwards. He made his latest trip to attend his father's funeral.

The principal change in his homeland during the past eight years, Gunner noted, was the economic upswing.

"There is now housing shortage and the new buildings are very modern," he said. "In addition, I noticed that more and more day laborers now own cars."

Although Denmark is uncomfortably close to Russia, Gunner could detect little cold war anxiety.

"They've lived with the anticipation of war for nearly two decades," he said, "so, by necessity, they've become stoics about world tensions."

## George Simpson Dies After Long Illness

Funeral services were held last week for George Simpson (4573) who died on July 13 following a lengthy illness.

A Corporation employee for six years, Mr. Simpson worked in Division 4573. He had been on leave of absence for three months prior to his death.

Survivors include his widow, Flora T. Simpson, a son, Ernest, Tulsa, Okla., a daughter, Mrs. Theresa Searing, Las Cruces, N. Mex., two sisters and a brother.



Sandia Corporation Has Worked 39 Days Without a Disabling Injury

## HERE'S WHY...

Because life has many "ups and downs" and their effects upon us are varied. However, if you go up a ladder and fail to come down properly, the effect might not only be serious, it could be permanent.

### 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

- '55 LAMBRETTA motor scooter, windshield, buddy seat and spare tire, \$180. West, AX 9-6775.
- '51 CHEVROLET, two-tone, new tires, relatively new battery, generator, seat covers, new windshield, \$350. Hale, 514 Alvarado SE, #2.
- WOOD TABLES, two, painted, 41" long, 24" wide, 29" high, \$5 each; treadle sewing machine, \$25; Bissel Sweeper, \$4. Cohen, AX 9-5744.
- MAYTAG WASHER, square tub, wringer model, \$15. Stueber, AX 9-1056.
- '55 PONTIAC, 2-door, 800 series, 8 cylinder, dual-range, hydramatic. Kessel, Ext. 27258.
- 3 BRM HOME, redecorated, spacious, 1 1/4 baths, brick, quiet street, unsurpassed view, \$16,950, approximately \$1,750 down, Causey, AX 9-0089, 2331 Gen. Arnold NE.
- '59 FIAT 500 Bianchina sport, 2500 miles, 45 mpg, black and white w/wsw, \$1395; Servicycle motor bike, \$40. Mullin, AL 5-9194.
- 3 BRM HOME, Roberson, den, fireplace, carpeted, built-in stove, air-conditioned, landscaped, near schools, base, shopping, Reneger, AX 9-2233.
- 670x15 WW Tires, 3, used. Shoemaker, CH 2-8028 after 5.
- BICYCLE for small boy w/learner wheels, \$10; 14 volumes, CREI course, \$25; over 250 receiving tubes in cartons, \$30. Warn, AL 6-6446.
- ARCHERY, 48" target and tripod, make offer. Hutton. AL 5-7435, 1124 Florida SE.
- TWO TWIN BEDS w/plastic headboards, metal frames on rollers; junior 4-drawer chest, \$5; Chicago shoe skates, size 7, \$12.50. Sweetman, Ext. 31187.
- SNOW EXECUTIVE home, wall-to-wall carpeting throughout, 3 bedrooms, large den, 1 1/4 baths, patio, walled, landscaped. Buchanan, AX 9-7306, 1812 Field Dr. NE.
- 3 BRM HOME, 1 1/2 baths, Hoffmantown, den, w/w carpeting, air-conditioning, walled yard, landscaping, many extras. Henderson, AX 9-3758.
- 3 BRM HOME, Inez brick, 1 1/4 baths, w/w carpeting throughout, air-conditioned, sprinklers, drapes, many extras, \$17,900. McCullar, AX 9-0638, 7603 Prospect Ave. NE.

- AIR CONDITIONER, Vornado, refrigerator-type, 220 volts, 1957 model, heating unit, push button controls, thermostatically controlled, \$135. Weinmaster, AL 6-3469, after 5.
- '58 VOLKSWAGON sedan, R&H, w/w tires, leather interior, low mileage, will consider trade. Millsap, Ext. 39281 after 5:30 p.m.
- BIRD CAGES, two, \$1 each; gas log, fireplace, \$10 or best offer; Venetian blinds, one 54", one 36", \$1 each. Joseph, AL 6-5414.
- GAS RANGE, \$40; dinette set, all metal construction w/4 chairs, \$20; Westinghouse refrigerator, clean, \$75. Fletcher, AM 8-2094.
- '55 FRIGIDAIRE electric range, \$175; 3/4 box springs and mattress, \$25. Smith, AX 9-3391.
- MANGLE IRON, \$15; electric hand sweeper, \$10; set of golf clubs w/bag, \$25; 2 recap snow tires, 670x15 w/wheels, \$22 for both. Vinovich, AX 9-1979.
- 2 BRM HOME, den, newly decorated, walled, hardwood floors, patio w/barb-que, near bases, \$11,700 w/\$1550 down for qualifying new FHA buyer. Astin, AL 6-3355.
- BABY PLAY PEN, collapsible, \$5. Webb, AL 6-6626.
- '56 ALLSTATE (Vespa) scooter w/accessories, \$160; Sears metal car carrier w/cover, \$10. Whitford, AX 9-4271.
- 10" TRICYCLE, \$5; 36-inch, 6-month infant's crib, w/mattress, \$7. Stea, Ext. 25292.
- POWER MOWER, 18" reel type, used 2 months, original cost \$130, will sell for \$85. Caldes, Ext. 49138.
- SEWING MACHINE, Necchi portable, w/ case and attachments, \$85. Roth, CH 3-0522.
- HI-FI CABINET, Cabinart model 70, stained mahogany, best offer; 9x15 brown tweed fiber rug, \$20. Schatz, AL 5-2854.
- GERMAN SHEPHERD, AKC registered, 9 months old, \$50. Cash, CH 2-3721.
- WASHER, Easy Spin, \$25 or best offer. Edgington, AX 9-9458.
- '39 PAKARD convertible, original owner's manual and history available, \$395. Clemons, AX 9-6004.
- ELECTRIC STOVE, Philco, automatic oven timer, \$75. Grant, AX 9-3270.
- '30 CHEVROLET, new paint, would make good rod; aluminum awning 40"x28"x30"; two boy's Schwinn bicycles, 20 in. and 26 in. Campbell, AX 9-4830.
- ENCYCLOPEDIA AMERICANA, latest addition, w/annual, pick up payments, must sell fast. Sikkal, AX 9-4238.
- DINING SET, walnut, table, 5 chairs, buffet, \$35; 9x15 gray wool rug, \$30. Martin, AL 6-3384, 1417 Indiana NE.
- AIR CONDITIONER, GE 1 ton Thinline, used only 5 weeks, \$170. Springer, AL 6-5095.
- '51 PLYMOUTH, \$175; hi-standard target pistol w/holster and extra clip, \$40. Reynolds, AX 9-0709.
- '51 DODGE sedan, R&H, good second car, \$295. Reid, DI 4-0521.
- '53 FORD 6, customline, clubcoupe, R&H standard shift. Hastings, DI 4-6818.
- FORMICA KITCHEN sink, counter top, 8' by 4', left hand L with cutout for double basin sink, pink, stainless steel edging, \$30. Gustafson, AX 9-3270.

### NEXT

## DEADLINE

FOR SHOPPING CENTER ADS  
Friday Noon, July 31

- 3 BRM HOME, brick, 1 1/4 tiled baths, 2 woodburning fireplaces, air-conditioning, disposal, double garage, sprinklers, landscaped, \$22,500. Brown, AX 9-4755, 2813 Utah NE.
- 3 BRM HOME, Hoffman Royal brick, 1 1/4 baths, many extras, \$17,500, offer \$15,000. Goris AX 9-2924.
- TWO LARGE LOTS in Tres Pistas Canyon, buy both for \$3500 total price, 6 miles from Base. Weir, AX 9-1160.
- TWO LOTS in Tres Pistas Canyon, good building sites, beautiful view, \$3500 for both. Knauft, AX 9-9138.
- REFRIGERATOR, Hotpoint, double-door, 1951 model, 10.6 cu. ft. capacity, 70 lb. freezer compartment, \$250 or best offer. Kail, AL 5-2933.
- DINING TABLE, wooden, w/2 chairs, \$20. Ash, CH 3-1869.
- WEBCOR 3-SPEED record player, w/ceramic cartridge, \$18; "Riviera" deep fringe antenna and mounting kit, \$25; 6 ft. bamboo shades, \$3 each. Mills, AX 9-2130.
- AIR CONDITIONER, small, cost \$35, sell for \$15. Wickham, Ext. 47296.
- HIGH CHAIR, 10" TV set, will trade for ping pong table, Houghton, AX 9-3386.
- 3 BRM HOME, Snow, 1 1/4 baths, DR or den, 2-car garage, many extras, \$14,850 total, \$1950 to new FHA loan. Vath, AX 9-1448, 9817 Leyendecker, NE.
- WRINGER TYPE washer, Maytag, \$25. Prentice, AX 9-4595.
- 45 COLT automatic, holster, 2 clips, 2 1/2 boxes ammo; electric motor 110V AC; cartridge belt, holster for 38 revolver. Schworer, AL 5-9279.
- BABY BED, stroller, bathinette, and jumper chair, \$15. Murray, DI 4-5289.
- '57 DE SOTO, 4-door Firestone, one owner, 24,000 miles, power steering, power brakes, R&H, \$2195. Swan, AL 6-7480 after 4:30 p.m., Saturdays.
- UPRIGHT FREEZER, 15 cu. ft., every shelf a quick freeze unit, I paid \$590, you pay \$290. Alesch, AX 9-5682.
- MAGIC REDUCING couch, reasonable. Hackard, AL 6-4312.
- 4 BRM BRICK, J. E. Brown, 1 1/4 baths, back gate to Queen of Heaven school, \$19,500, \$4000 down, see Sunday. Reed, AM 8-8839.
- BEDROOM SINK, vanity, bed and chest, \$100; baby bed w/mattress, \$15. Silence, AX 9-1796.
- CRIB w/mattress, double drop sides, teething rails, blond, \$22. Anderson, Ext. 37251.
- '59 BUICK, Le Sabre, 2 door hardtop, R&H wsw, power steering, many extras, will take older car for equity. Roane, AX 9-6554.
- ALUMINUM ARROWS, matched, feather burner, golf, arrows, hunting quiver, double sleeping bag, car cooler, \$40. Geibel, AM 8-8147 after 5:30 p.m.
- '57 VOLKSWAGEN Deluxe. Irwin, AL 5-8180 after 5.

- CAR COOLER, 6V, \$12; trumpet w/case, \$35; Kirby polisher attachment, \$5; game room bowling machine, trade or make offer. DeVore, AL 5-7211.
- '53 NASH STATESMAN, R&H, overdrive, \$350 or make offer. Sanchez, AL 5-2952 after 6.
- AKC BOXERS, 10 weeks old. Simmons, AX 9-3823.
- '55 INDIAN Fire Arrow motorcycle, economical transportation, \$300 or reasonable offer. Braun, CH 7-9667, 2105 Gold Ave. SE after 5.
- ARMY GREEN uniform, jacket 40S, pants 30-30, cap size 7. Edwards, AX 9-5495.
- 3 BRM HOME, 1 1/4 baths, garage, walled, landscaped yard, range, dishwasher, disposal, draperies, good LR, DR, Hall carpeting, \$22,000. Baumgartner, AL 6-9140, 1714 Ross SE.
- .22 CAL. Ruger Single action revolver, \$40. Laskar, AX 9-1024.
- ELECTRIC RANGE w/double oven and grill, automatic timing, almost new, \$245; electric rotisserie, \$25. Clement, AX 9-6552.
- GAS RANGE, w/griddle, separate broiler, \$40; 6V car cooler, BC 645 w/dynamotor. Baker, AM 8-8490.
- STURDY OAK work bench, \$15; AT-1 transmitter, \$25; folding screen room divider, \$15; Nesco electric oven, \$7.50, baby scales, \$4. Scroggin, AL 5-2841.
- KNIBB ELECTRIC 1/2 gal. ice cream freezer, practically new, operates inside freezer compartment, \$19. Roberts, AL 5-2001.
- RUBBER BOAT, 6-man, \$40; desk w/chair, \$18; slipcovered armchair, \$12; Singer sewing machine, \$7; Hollywood bed, \$15; misc. Cropper, AX 9-1697.
- FOUR TIRES, tubes and wheels, size 750-20, off 1946 Ford, \$125. Gibson, 429 63rd St. NW.
- BOY'S SMALL pedal Murray tractor, will trade for 28" boy's bike in good shape. Kochmann, AX 9-5133.
- LARGE CAGE for rabbits or pigeons. File, 3031 Truman NE.
- RANGE HOOD, new, w/light and fan; .38 S.W. Revolver, Sporterized Enfield Rifle 24" barrel, Bishop stock, Redfield sights. Rushing, AX 9-4796 after 5.
- DACHSHUND PUPPIES, not registered, but purebreds, \$25 each. McClelland, AL 5-1829.
- ACCORDION, 120 bass Enrico Rosello, used 6 months, \$125 w/case. Laursen, AX 9-1656.
- '52 CHEVROLET, Hardtop convertible, \$250. Cordova, CH 7-8137.
- SPUDDER type well drilling rig includes cable, rope, socket drill stem; drill bits, jars, etc., mounted on trailer. Brooks, Ext. 28269 after 5.
- '59 ROADLINER trailer, Deluxe model, full bath and shower, air conditioned, used 6 weeks, one bedroom. Stewart, Sun-down Trailer Court, 4221 Central NW.
- FLOOR POLISHER, Westinghouse, plus scrubbing attachments, \$30. Hynes, DI 4-2680.
- PICKET FENCE, all wood, 50 ft., w/gate and posts. Holman, AL 5-9494 after 5.
- REFRIGERATOR, Coldspot, 7.3 cu. ft., clean, \$45 or best offer. Roberts, Ext. 33159.
- '49 ENGLISH FORD, 2-door, 4-cylinder engine, temperamental nature, economical transportation for mechanically inclined, \$70. Vokes, AL 6-5984.

JEEP WITH steel cab, rebuilt motor and transfer case, \$425; '51 Olds 98 4-door, \$325. Harker, Ext. 41138.

### WANTED

- TO CARE for one or two children in my home NE Heights. Peterson, AX 9-2641.
- TO TRADE 125 Allstate motorcycle, for Crosley in good condition. Edwards, AX 9-5496.
- HOME FOR SMALL terrier type female dog, 5 months old, good with children. McVeety, AX 9-5718.
- TO TRADE 1958 Renault Dauphine for 1957 Ford "Custom 300." Must sacrifice economy for room. Stark, AL 6-9402, 1104 Palomas SE.
- TECHNICAL BOOKS which pertain to Physics for classroom reference and interest shelf, needed by high school teacher for nominal cost. Kyrloch, DI 4-3083.
- CHILD CARE in my home, age 1 1/2 to 3 years, weekdays. Gentry, 1020 Quincy SE, AL 6-2478.
- DONATION OF hearing aids, used but useable, for training of retarded children at Los Lunas Hospital and Training School. Abeyta, AL 5-5369.
- DROP LEAF TABLE, w/four chairs, small, suitable for use in house trailer. Fletcher, Ext. 35135.
- LADY for child care and housework. References. Cumber, AL 5-1537.

### FOR RENT

- 3 BRM HOUSE, 5 minutes north of Base, \$105 per month, water and garbage paid. Teta, AX 9-6155.
- 2 BRM HOME, unfurnished, walled, lawn, near schools, \$100 per month, water, garbage paid. Thompson AX 9-3416, 9306 Headingly NE.
- EFFICIENCY-STYLE cabin, furnished, modern, 17 miles from base, north highway 10, \$60 month, utilities paid, available Aug. 1. Miller, Ext. 33138.
- 3 BRM HOME in NE Hts., garage, air-conditioned, walled backyard w/trees and lawn, nice neighborhood. Laskar, AX 9-1024.

### LIVERMORE FOR SALE

SOFA BED, green, \$15; Speed Queen Ironer, \$15; GE Range, standard, single oven, push button, automatic timer, \$75. Turnbull, VI 6-4166.

### LOST AND FOUND

- LOST—Man's gold wedding band w/diamonds; Cluster, white frame prescription sunglasses; Ray Ban glasses lost near Bldg. 832; plastic rim glasses w/brown bow piece in case marked Pildes, N. Y.; bracelet type watch w/name engraved Merlene Medina on back, ladies black-brown w/teal shaped glasses, drawing pencil w/cap on both ends, topaz ring, silver Southwestern State College ring, black wallet w/ID of Ronald Sutton. LOST AND FOUND, Ext. 26149.
- FOUND—Two-tone green Paper Mate pen, safety glasses, 4 keys on copper chain, one for Nash; penknife w/mother of pearl handle engraved Floyd Isom Lumber Co.; Timex Watch found at Coronado Club swimming pool. LOST AND FOUND, Ext. 26149.
- LOST—Radio, Wales transistor, at Coronado Club pool July 7. Lisa Cundiff, 5905 Constitution Ave. NE, AL 6-4649.

# Unique Jobs Are Commonplace In Special Machine Section



**SPARKS FLY** as John Moffet uses an electron drill to center drill a cylinder of alnico. The machine progresses at the rate of  $\frac{1}{2}$  inch every 11 minutes and is an extremely accurate machine tool.

Work of the Special Machine Section 4251-2 is unique in the Development Shops organization.

"Most of the unusual material working jobs come to us," Frank Long, supervisor, says. "We handle the grinding and shaping of parts that require unusual configurations, the jobs that require the maximum in precision and accuracy, the jobs on rare metals, plastics, ceramics, quartz or ferrite materials."

The work is different from other Development Shops groups in that precision grinding and jig boring are the specialties of the men of the section. The equipment that performs this work has a capability for greater precision than other types of machine equipment.

In his 13 years with Sandia's Development Shops, Frank has seen the work progress from relatively straightforward machine operations on conventional metals into new areas of extreme tolerance requirements on rare metals, plastics and ceramic materials. The trend, too, is toward smaller and smaller parts demanding the utmost in precision.

Currently the greatest challenge to the ability of the section's specialists is quartz cutting jobs. One such job, on quartz crystal, laboratory-grown by Western Electric Company, requires the finished piece to be accurate to .0005 inch in flatness, parallelism and perpendicularity on all sides.

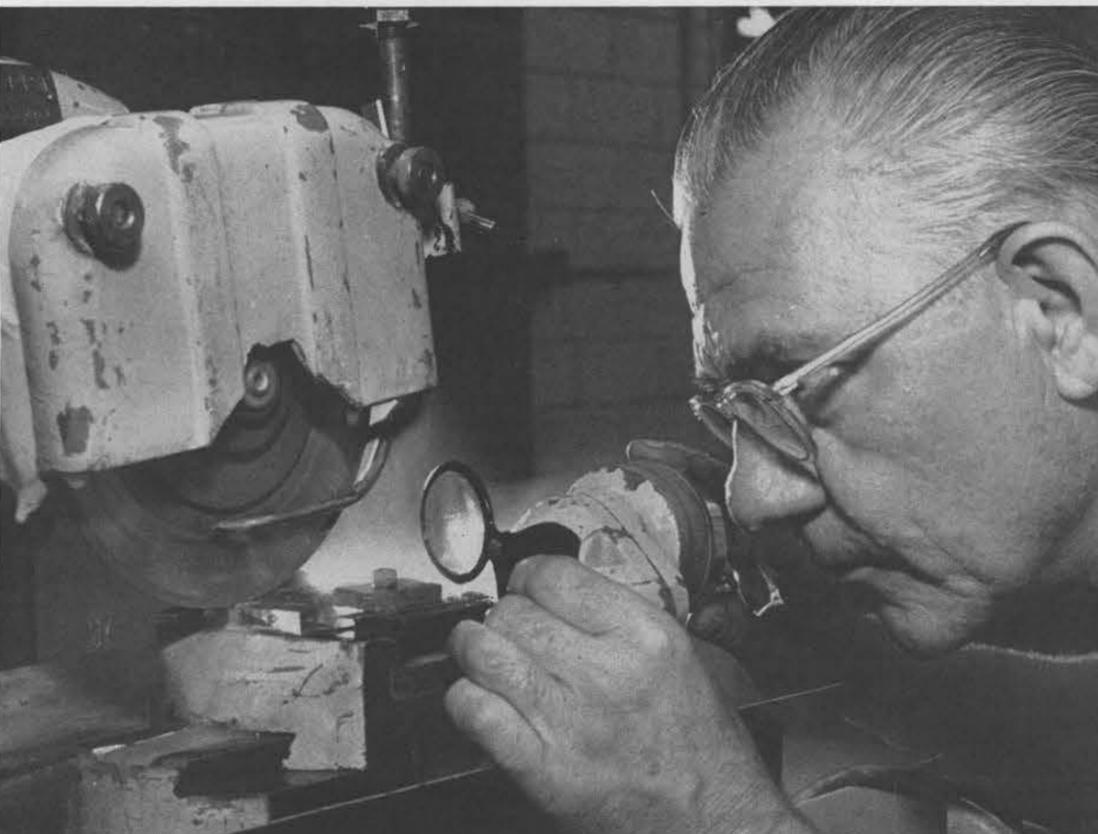
A plate glass finish is also required on the job. This means that it will be hand polished using a wheel lap of lucite or copper. A fine diamond dust is impregnated into this lap. Size of the diamond dust particles is 50 millionths of an inch in diameter.

Most jobs coming through the shop average 16 to 20 hours of machine time. They require several operations and the use of several machines. The section utilizes some 25 different machines in its work. Total investment for the equipment is about \$150,000.

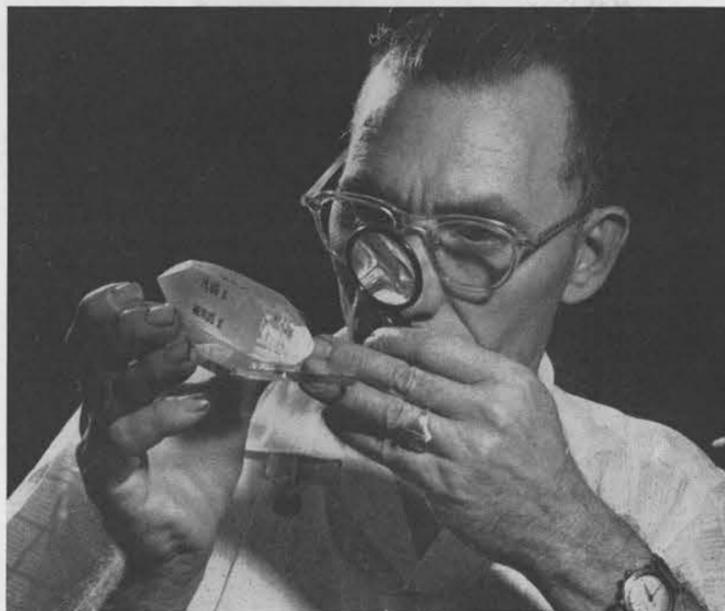
One of the machines that makes the section's work unique is the Cavitron, a recent development utilizing a new approach to machine tools. The tool head of the Cavitron contains a cavity that is the dimension of the piece required. Or it can be shaped to make a cavity in the part. The tool heads for the Cavitron are machined in the shop to the requirements of the various jobs. They are usually composed of softer metal than the material to be shaped.



**VERSATILE EXPERIENCE** is gained in the Special Machine Section by apprentice Kyle Williams. Here he is using a jig grinder to shape the inside diameter of a tiny cylinder of alnico metal.



**GERMANIUM**, a rare crystalline very hard metal, Adolph Litka. He uses a magnifying glass to follow the progress of the delicate cutting operation.



**DAN DAVIS** examines a piece of laboratory grown quartz crystal. He is looking at the grain structure of the crystal for possible flaws that will influence the way it will be cut. Delicate grinding job must be extremely accurate and splitting planes carefully checked.

The Cavitron ultrasonically "stretches" the tool head as it is slowly lowered over or into the material. The metal head stretches laterally about .0035 inch and is vibrated 20,000 times per second. Flowing through the head is a grit solution containing microscopic particles of boron carbide. This minute, yet extremely vigorous, action grinds the part. The hardness of the material being shaped is not a problem with the Cavi-

tron, the machine performs better on harder materials. It makes possible cutting and shaping materials and configurations that several years ago would have been impossible.

Use of the machine is one of the reasons why the section handles the unusual jobs.

"Ability and experience of the specialists in the section are the other reasons," Frank says.



**CONFIDENCE LIMIT COMPUTER** inventor, Joe Muench (1592-2) discusses working model of the slide rule device with Rupert McHarney (4763), technical artist, right, who is preparing final drawings which will be used in producing the computer.

## 'Confidence Limit Computer' Invented by J. O. Muench

J. O. "Joe" Muench (1592-3), its inventor, calls the slide rule a "Confidence Limit Computer."

"It's a handy device that gives the upper confidence limit, for various levels of confidence, for any dichotomized situation," according to Joe.

For example, if one is interested in the fraction defective in a lot of a product, a random sample is selected and tested to determine the number of defective items in the sample. Then the slide rule can be used to predict an upper confidence limit on the fraction defective in the lot.

Previously, the information accessible on the computer was only available in the form of graphs, charts or tables.

### Saw Need

Joe saw the need for such a device in his work in the Statistics & Evaluation Division 1592 of the Reliability Department. He wasn't sure his idea could be made into a practical slide rule so he developed it in his spare time at home until he was confident that a useful device could be produced.

He experimented with several models, both circular and linear, until he found the format that would work best. Rupert McHarney (4763), technical artist, prepared the final precision layouts for the device. They were drawn oversize for accuracy and will be reduced and printed.

### Used At Sandia

The new slide rule will be utilized by Sandia statisticians, design engineers, reliability and manufacturing development engineers. It will be available for distribution in about six weeks.

Joe has been employed at Sandia since 1946. His experience has been environmental testing, mechanical design and development, quality control and reliability development.

Prior to joining Sandia, he was an instructor at Highlands University, Las Vegas, N. M., and worked in the aircraft industry at Fresno, Calif.

He holds a BS degree in aeronautical engineering from Parks College of St. Louis University and an AB degree in chemistry from Highlands University.