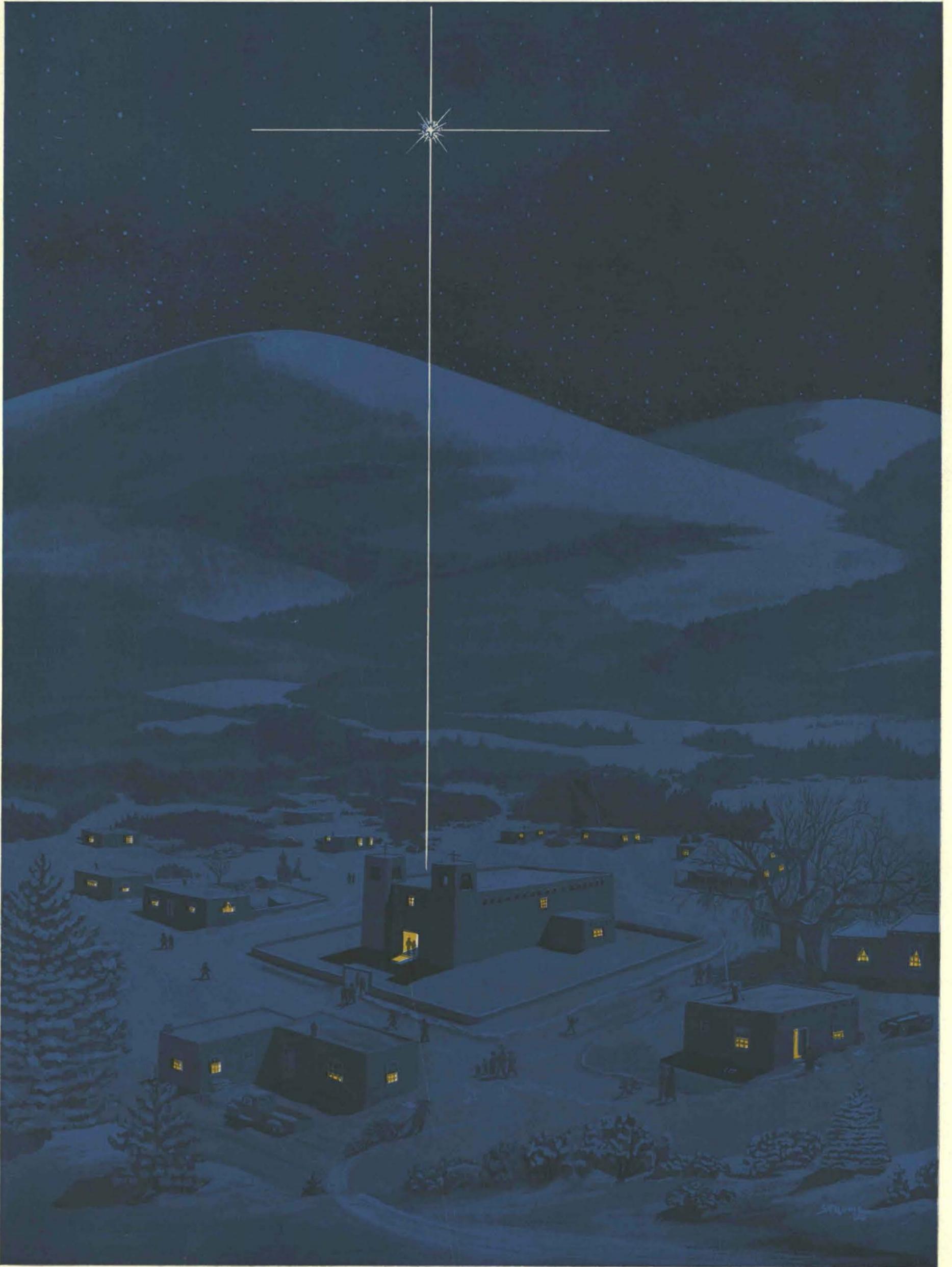


# Sandia Lab News

VOL. 8, NO. 25

ALBUQUERQUE, NEW MEXICO

DECEMBER 14, 1956





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## To You--

If I could do whate'er I want to do,  
To make complete your glad some Christmas Day,  
I would not bring a single thing to you,  
But I would come and take some things away:

I'd take away all trouble from your heart;  
Each pain and sorrow I would have relieved;  
And every word that caused a single smart,  
And every hour through which you have grieved.

I'd have them all be gone—forever gone—  
Forgotten, like the things that cannot be;  
And then each hour would be a joyful one,  
For only good things would be left, you see.

Now that is what I'd really like to do—  
If I could do the things I wish for you.

—Author Unknown

### Handbook for Employees

A guide for new employees, "Welcome to Sandia," will be placed on the booklet racks today. The recently published booklet is being made available to all employees on the roll because it summarizes a good deal of information about benefits, progress review, work schedules, pay arrangements, and other details not previously available in a single handy guide.

### Bird in Hand

Harold Riley, 2911-2, likes a little variety in his hunting.

Harold was recently walking in a field looking for pheasants. Just as he stuck his hand in a pocket for chewing gum a pheasant popped into sight. Pocket contents scattered on the ground as he grabbed the gun and downed the bird.

When he came back to pick up his pheasant there was an extra large pheasant under a nearby bush. He caught it with his bare hands.

### Pot-Luck

Organizations in Bldg. 813 are planning a gala Christmas lunch—actually to be held on Dec. 24. Members of the five different organizations in the building will bring covered dishes and have a true "smorgasbord."

## Edwin W. Joch Dies Nov. 28

Sympathy is extended to the family of Edwin W. Joch, a Corporation employee who died Nov. 28 at the age of 56.

Mr. Joch was a mechanical inspector in 2132-1. He had been on sick leave since Nov. 9 due to an acute asthmatic condition and was in Bataan Memorial Hospital at the time of his death.

He had worked at Sandia since January, 1951.

Survivors include his widow, a daughter who is living at home while her husband is overseas, and two granddaughters.



E. W. Joch

### Good Deed

Motorists entering Sandia's East Gate Monday morning, Dec. 3, were surprised to see A. K. Leupold, manager of Manufacturing Engineering Department 2550, directing traffic.

During the morning rush the military policeman stationed at the gate fainted. Mr. Leupold took over temporarily after assisting with the removal of the MP to a safe resting place.

### TV Stars

Two Sandians appeared recently on a TV championship bowling program. Marty Baldwin, 2553-4, and her bowling instructor, Rudy Vinovich, 2221, were interviewed concerning the advantages of taking lessons. Marty has made remarkable progress in increasing her score.

### Welcome Back

Organization 2721 welcomes back Tony Chavez and Bea Lawyer after recent hospitalization.

Organization 2711 welcomes back James Hice and Eduardo Chavez after extended illness.

A "welcome back" is extended to Doris Furry, 4135. Doris has been ill for the past three weeks.

## W. S. Spradling Dies Dec. 3 of Heart Attack

William S. Spradling, an employee in Special Machine Section 2151-2 since March, 1954, died Dec. 3 at the age of 47.

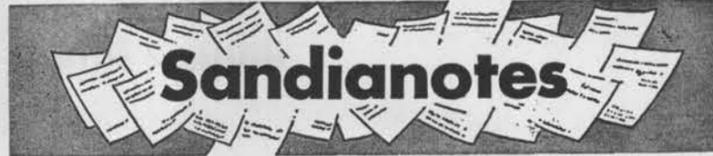
He was stricken with a heart attack and was declared dead upon arrival at the Sandia Base Hospital.

He is survived by his wife, Pauline, who works in 2231; a daughter, Mrs. Shirley Fleming, employed in 7411, and an 11-year-old son, Stuart.

The body was sent to Charleston, W. Va., for burial.



W. S. Spradling



### Writes of Rifles

A Sandia Lab News reporter, Bob Kindley, has an article in the current issue of New Mexico Magazine.

The feature story is entitled "Kentucky Rifles — Albuquerque Style" and tells about Dick Hicks who makes muzzle-loading rifles on special order. Dick's wife, Shirley, works in 5224.

Bob, a design engineer for the past four years in 1284, has had frequent articles in a national gun magazine. He also has a collection of 14 or 15 rifles but admits that writing about the weapons is his main hobby.

### Hospital Recreation Needs

Here's a way to help provide recreation for needy persons, especially children, who will be hospitalized during the holiday season.

Donations of used games, magazines, playing cards and other entertainment aids are requested for the County Indian Hospital and the Veterans Hospital.

Helen Hakes, 2333-1, will pick up your contribution from your home if you call her evenings or week-ends at Alb. 6-2114. Contributions may also be left with the receptionist in Bldg. 800.



CHRISTMAS NEW MEXICO STYLE could mean friends gathered around a corner fireplace, a piñata filled with toys hung in the center of the room, and luminarios decorating the adobe outside place. Nancy Sanchez, 2461-1, finds the fireplace a handy place to peel an apple—maybe to add to mincemeat for a pie.

### 2500 Basketball Call

All 2500 personnel interested in playing basketball are requested to contact Harold Cushman, 2551-2, ext. 37132.

### With Livermore PTA

Sandians are taking an active interest in a new school opened this fall at Livermore. At the first meeting of the Livermore East Avenue PTA Art Grover, 1811, was elected vice president and Carl Eachman, 1811, was chosen treasurer.

### Get Well Wishes

Best wishes to George McCarthy, 1822, who recently returned to work at Livermore after a period of hospitalization. George must return to the hospital for further observation and tests but his co-workers hope he is well on the way to recovery.

Bruce L. Barth, 5143, is recovering from a recent operation. Ted R. Holland, 5142, has also been off work recently due to an eye infection.

### Moving Day

Jack Wiesen, 5125, and his family moved into a new home at 4011 Hannett NE.

### Like a Bird

A contralto part in Puccini's "Sister Angelica" will be taken by Elaine Schwid, 7225 assigned to 5120. The University of New Mexico Opera Workshop will present the short opera on Dec. 19 at Carlisle Gym.

### Dinner Honors Transfer

Members of 2721-3 recently gave a farewell dinner to Jim Simpson who has transferred to 1224.

### Anniversaries

Two members of 5122 will be observing wedding anniversaries this month. Dick Hildner will mark his 15th year of marriage on Dec. 20 and Howard Wicke will celebrate his 11th anniversary on Dec. 27.

On Christmas Day Barbara Frank, 7225 assigned to 5130, will observe her sixth wedding anniversary.

### Prize-winner

Two Sandians are justly proud of their son's baritone voice. Wally Warren, son of Wallace 2351 and Evys Wallace 5125, recently won second place in a voice competition at Denton, Tex., sponsored by the National Association of Teachers of Singing.

Wally's prize was a part scholarship to the summer workshop of the Inspiration Point Fine Arts Colony in Eureka Springs, Ark. He is a junior at Highland High.

### Some Family!

When Mrs. Maria S. Chavez of Willard, N. M., observed her 87th birthday recently there were 223 descendants to extend to her best wishes, including two Sandians.

I. F. Chavez, 2472, is one of her 16 children and 97 grandchildren, 2412, is among her 31 grandchildren. Mrs. Chavez also has 107 great-grandchildren and three great-great-grandchildren.

## Weddings

Catherine Anesi, 4151, was married Dec. 1 to William D. Blaylock of Malden, Mo., now stationed at Sandia Base.



The afternoon ceremony was held at the home of Mr. and Mrs. Edward Hainlen and was followed by a dinner at the Desert Sands for the wedding party and guests. Later in the evening a reception was held at the NCO Club at Sandia Base.

Prior to the wedding "Cathy" was given a party by organizations 4151 and 4152.

The Blaylock's honeymooned in southern New Mexico.

Mr. and Mrs. James G. Brock are now making their home at 1002 June St. NE, following their recent marriage.

Mrs. Brock is the former Anna Beth Newbill of 2222. The groom one time worked in 2461.

The wedding was held at Christ's Church and was followed by a reception at the Coronado Club. Attendants included Lawrence J. Woolrich, 1611, and Donna J. Ross, formerly of 4131.

## Congratulations

### Born to:

Mr. and Mrs. Robert A. Dawirs, 1261-1, a son, Larry Lee, on Nov. 28.

Mr. and Mrs. Ray Hustons, 1831, a son, Edward Ray, at Livermore, Calif. recently.

Mr. and Mrs. Pete Gallegos, 2723-3, a daughter, on Nov. 8.

Mr. and Mrs. George Steck, 5125, a daughter, Ricia Jean, on Dec. 5.

Mr. and Mrs. Don Montgomery, 4153, a son, Hugh Scott, on Dec. 3.

Mr. and Mrs. George Blea, 4153, a son, Gerry Allen, on Dec. 4.

Mr. and Mrs. Ralph W. Olson, 5141, a son, Joel, on Nov. 16.

Mr. and Mrs. James P. Gallagher, 5143, a son, Brian Jay, on Nov. 26.

## Sympathy

To Edith Worley, 2462, for the death of her mother-in-law in Bowie, Tex., Nov. 26.

To Robert S. Gillespie, 3125-1, for the death of his mother in Los Angeles, Dec. 3.

To Carmie Sanchez, 3153-2, for the death of her father on Nov. 22.

To Joe L. Garcia, 2461-5, for the death of his young son in Albuquerque, Dec. 4.

### On Sick List

Edward W. Baldwin, manager of Administrative Services Department 1830 at Livermore, has suffered a relapse from a recent illness and is unable to be in his office.

Mr. Baldwin transferred to Livermore Nov. 16 from Sandia where he had been Manager of the Payroll, Tabulating and Vouchering Department, 1330.

### New Post

Sandia's Purchasing Agent, K. S. Spoon 2300, was recently named a director of the New Mexico Manufacturers Association.

### Heads Mobile Unit

The Albuquerque Red Cross Mobile Unit recently elected a Sandian, Ray Sheppard 1441, as its chairman.

The unit comprises Red Cross first aid instructors from throughout the Albuquerque area.

Ray recently completed the first aid instructor's course offered by Sandia Corporation General Training and Education Division.

## Message from the President

Another year of outstanding accomplishment for Sandia Corporation is drawing to a close. There is no way in which the military, the AEC, the government or the individual taxpayers can thank each of you for what you have done. Even I can only do so in this way. But this does not make the appreciation any the less warm or sincere. On behalf of all those who would do so if they could, I say: Thank you.



But now is the time to pause and commemorate the birth of Christ.

Since this is the year in which we established another group away from Albuquerque, it seems appropriate for me to take special notice of all of you who do not live and work in Albuquerque. So, to one and all, to those here and

to those based at Livermore, Salton Sea, Tonopah, New York, Chicago and Los Angeles and also to those working with the military and in the plants of our suppliers, at locations far and near, my very best personal wishes for a Merry Christmas and a Happy New Year.

*J. W. Galbreath*  
President,  
Sandia Corporation



ON A TOUR of Sandia Corporation facilities recently were Senator John O. Pastore (D-RI) third from left, member of the Joint Congressional Committee on Atomic Energy and James P. Ramey,

second from left, executive secretary of the Committee. With them are Kenner F. Hertford, left, Manager of AEC's Albuquerque Operations, M. H. Howarth, Sandia Vice-President, General Manager.

## Base to be Evacuated Today in Training Exercise 'Ever Ready'

Continuous blasting of sirens and steam horns sometime this afternoon between 1:00 and 5:00 p.m. will signal the beginning of exercise "Ever Ready," a practice evacuation to provide training in emergency procedures.

All Sandia Corporation employees will evacuate the Base with the exception of those at Manzano Base, Tech Area III, and certain individuals whose work is of a continuous nature. Employees designated by their supervisors to perform their regular functions during the practice will not participate in the training exercise.

Upon sounding of the evacuation signal, employees will perform usual closing time duties such as securing classified information and material, disconnecting electrical appliances and closing windows. Employees will not "punch out" when leaving and will not be expected to return when the "all clear" sounds.

Military Police will insure an orderly flow of traffic. No deviation or crossing traffic will be al-

lowed. Routes to be followed are as follows:

Employees whose cars are parked west of Bldg. 800 will proceed north on Main Street to the North Gate. Cars parked on F street east of Main street, east and south sides of Tech Area I, or in the lot outside of Tech Area II will proceed by the nearest access road to the East Gate and Eubank Blvd.

Upon reaching Central Ave., they will proceed to their homes or other off-base areas as desired. Employees who reside in the AEC Housing Area will depart from the Base through designated gates and return through the West Gate (Gibson Ave.) which is reserved for incoming traffic.

Car pool riders will assemble in the parking lot in which the driver's car is parked. Bicycle riders should delay until evacuation is completed or arrange for car pool rides. City bus service will be maintained throughout the evacuation.

Employees who normally return Corporation vehicles to the Motor Pool at the close of work will park their vehicles in designated assembly areas—north and east of Bldg. 803, east of Bldg. 880, and west of Bldg. 901 in Tech Area II.

Kindergarten and Nursery children and teachers will not partici-

pate in the practice evacuation. Children who walk home will be dismissed prior to the evacuation. All other children will remain at the school until their parents call for them. Employees who pick up their children at the Kindergarten or Nursery should delay their arrival at the school until the base has been evacuated.

Sandia Corporation and AEC official visitors will depart from the base along with the participating employees when the evacuation signal sounds.

The all-clear signal will be three one-minute soundings of sirens and steam horns repeated at two-minute intervals.

### Corporation to Observe Holidays; Normal Work Week to Continue

Sandia Corporation will operate under normal Monday through Friday work schedules the weeks of Dec. 24 and 31 except that Christmas and New Year's days will be observed as holidays.

Employees will be excused from work one hour ahead of their normal quitting time on Monday, Dec. 24 and 31, with no loss in pay. However, where continuous work coverage is required, supervisors will determine which employees must remain.

### Holiday Mood Reflected By Decorations

As in the past Sandia Corporation will reflect the mood of the holidays with Christmas trees, decorations, music over the public address systems and Corporation gifts to ill employees.

Fourteen trees will be decorated with lights and placed at various locations about the Corporation. The front of Bldg. 800 will again be the showpiece of the holiday trappings with one 30-ft. tree and the growing evergreen both lighted and decorated. The foyer will be decked with holly boughs and wreaths. Matt Ungerman, 2223, and his wife plan and direct the decorations on the front of Bldg. 800.

The Christmas program committee included Matt, J. W. Galbreath 3122, O. L. Wright 7230, W. S. Sharp 2131, C. W. Dickinson 4110, W. C. Elskes 2411, and T. B. Sherwin 3125. Organization 2410 will install the lights and decorations.

Greetings in the form of baskets of fruit are traditionally sent to seriously ill Corporation employees. Employee Services, 3122, is in charge of this service.

### Packages Brought Into Tech Area Subject to Security Inspection

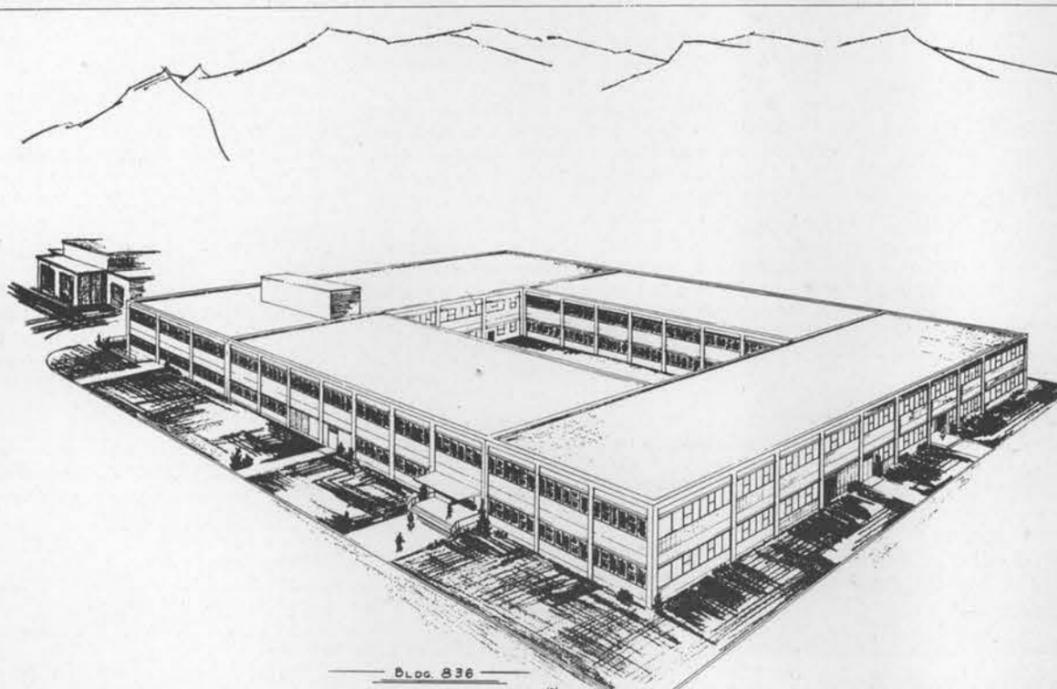
Sandia Corporation employees are reminded during this holiday season that personal packages brought into the Tech Area will be subject to inspection by the security force before they are removed from the area. To spare any inconvenience, it is suggested that employees not bring in packages.

### Christmas Seals Help Fight Tuberculosis

This year, as in every December for the past 50 years, Christmas Seals are being mailed out to help fight tuberculosis.

The program of the Bernalillo County Tuberculosis Association follows the national drive for prevention, education and early treatment. Last year over 15,000 residents of this county visited the local chest clinic.

Glenn A. Fowler, Vice-President, Research 5000, is one of the co-chairmen for the seal sale and here at Sandia he is receiving assistance from J. W. Galbreath, 3122, Ken Smith, 3152, and Mrs. F. P. Salazar, 5000.



BLDG. 836 now being constructed by the AEC in the Tech Area will look like this sketch by artist Neal Humble, Structural and Planning Division of the Plant Engineering Department 2440. Sandia's new

office and laboratory building will be completed about May 15 at a cost of \$1,235,370. It will be a two story quadrangle surrounding an uncovered patio. The building will contain 79,000 sq. ft. of space.

## Sandians of Los Altos Share Luminarios' Cost, Decorating

Sandians planning to use luminarios for Christmas decorations on their houses during the holidays might profit from the experience of a group residing in the Los Altos sub-division.

For the past six years on Christmas eve the owners of the 28 adobe homes of Rio Vista Circle SW have placed luminarios over the entire sub-division area. The beautiful effect gives the walled homes the illusion of a luminous Spanish Castle attracting hundreds of visitors.

This year the group—among them Sandians C. J. McGarr, 2340, M.V. Gowdey 7123, Maude McCarthy 1423, Florencio Baca 2414,

and J. G. Marsh 7223—purchased more than 6,000 candles and bags to make the luminarios.

The group bought the squat 12-hour candles in bulk at a cost of \$7 per homeowner. The paper sacks used for the luminarios are filled with two inches of sand and the candles placed in the center. In this manner they present a minimum fire hazard. The group figured 125 candles for each house.

To reach the Los Altos sub-division, drive south on Fourth St. and once across the river proceed on Bridge Blvd. to Coors Road. On Christmas eve the Los Altos luminarios will be visible on the bluff above Coors Road.

## More Sandia Organizations Plan Holiday Help to Needy

The number of Sandia Corporation organizations planning to aid needy families rather than exchange Christmas cards has more than doubled in the past two weeks.

Organization 2353 expresses the thought nicely: "Blessed is the hand that prepareth a pleasure for a child." Their program for providing holiday cheer for a needy family in the form of food, clothing, toys and cash includes a hearty "Merry Christmas" given verbally to co-workers in place of the usual greeting card and at the same time putting the true spirit of Christmas-giving into action.

Other groups are making up food baskets, contributing cash, collecting clothing, or "adopting" a family for the holiday season.

Employee Services will have available (through the Albuquerque Council of Social Agencies) a list of names of less fortunate families, and other worthy charity needs in Albuquerque. For information, call ext. 26149. When a family is assigned to one organization, that group's representative will be responsible for delivery of the gift.

The Council of Social Agencies also is providing information about deserving local charities which are especially active over the holiday season and can well utilize cash donations.

Departments in 1400 have raised more than \$450 which will be divided between the Toys for Tots Drive and the Salvation Army.

In collecting money to help deserving families, Organization 2711 is using an added incentive. George Shelton, 2711-5, has donated three original watercolor landscapes which will be awarded to winners of a drawing, held in conjunction with the fund drive. Each 50 cents donation entitles the giver to one chance in the drawing.

The "adopted" family idea is mushrooming in organization 5530. Definite arrangements have been made for providing a family of 11 with the bare necessities from January through March. A bulletin circulated throughout the organization contains sketches of the family and complete information about their welfare and needs. Several Albuquerque merchants have agreed to provide needed items at wholesale prices.

"Help a Needy Family Have a Merry Christmas" is the slogan for 4131 and the food basket idea

is also being followed by 1650, 2220, 2510, 2551, 2711, 4111, 4151, 5222, 5512 and 7240 in addition to those organizations listed in the last issue of the Lab News.

All workers in Bldg. 813 are going together to collect clothing and food. Organizations represented in this cooperative drive will be 7411-3, 7111-1, 7223, 3210 and 3211.

## Double Program Set for PGTRC Tuesday, Dec. 18

A double program is scheduled for the Professional Group on Telemetry and Remote Control Tuesday, Dec. 18, John McLay, 1455, group coordinator, reports. The meeting will begin at 8 p.m. in Rm. 201 of the Electrical Engineering Building on the UNM campus.

C. H. Hoepfner, national chairman of PGTRC and Director of Research for Radiation, Inc., Melbourne, Fla., will discuss policies and procedures of the national organization of PGTRC. He will also discuss a technical subject, "Errors in Digital Measurements and Role of the Telemetry Engineer."

G. S. Shaw, vice-president, engineering, Radiation, Inc., will discuss the subject, "An Introduction to Pulse-Code Telemetry."

## 'Missiles' Topic of NAA Speaker at ASME Meeting

The American Society of Mechanical Engineers will meet Wednesday, Dec. 19, at 7:30 p.m. in Rm. 101 of Mitchell Hall, UNM. Gene Gardner, 2154, publicity chairman, reports.

"Guided Missiles: Vanguard of the U. S. Assault on Technological Barriers" is the title of a talk to be presented by D. D. Acker, Assistant to the Manager of the Autometrics Applications Division of North American Aviation, Inc., Bellflower, Calif.

Supporting Mr. Acker's talk will be a movie, "Engineering for Tomorrow," produced by North American which traces the development of a hypothetical weapon.

## Sandians Given Chance To Assist Hungarians Fighting for Freedom

An opportunity for every employee to contribute to the Hungarian relief campaign being handled by the Red Cross is being extended through the distribution of literature and contribution envelopes within the Corporation work area.

No area solicitation will be made, but employees are urged to send their contributions in the special envelopes addressed to the Bernalillo County Chapter of the American Red Cross. As pointed out in publicity accompanying the letter to employees, the entire amount collected by the Red Cross will be used to provide direct assistance to homeless refugees in Hungary. Because of the urgent need for funds to feed and clothe the refugees, the Red Cross is appealing to contributors to turn in their money as soon as possible. They expect to be feeding and sheltering 200,000 Hungarians by January.

Contributions are being made anonymously but the Red Cross has agreed to total the contributions received from Sandia Corporation employees in the special envelopes to provide some indication of extent to which Corporation employees are participating in this humanitarian movement.

## Social Security Deductions Go Up

Sandians are reminded that starting Jan. 1, 1957, their paycheck will show a change in social security tax deductions, authorized by Congress last August.

The increase is in line with liberalized benefits.

The deduction will be increased from the present 2% to 2 1/4% on salaries up to \$4,200 a year. Wages in excess of that amount will not be taxed.

Sandia Corporation will pay a similar tax of 2 1/4% in each employee's behalf in addition to 3 per cent unemployment tax which employees do not pay.

## Identity Badge Will Be Issued Retirees

Employee Services has instituted an identification badge to be issued retired Sandia Corporation employees.

The badges are the same size as the usual AEC identification cards and may be used for admittance to Sandia Base — but not to the Corporation Tech Area.



SPRIT OF CHRISTMAS is typified by Joan Blodgett, 5232, who looks here as if she could use a third arm to hold onto those gifts.

## Buy Gifts to Suit Recipients; Express Yourself in Wrapping

When you're footsore and frustrated from Christmas shopping there's still a big job ahead—wrapping the presents in a decorative manner.

Here's a tip to make the task seem less like a chore. The gift is selected to suit the recipient, but your personality, taste and thoughtfulness are expressed in the wrappings. An attractive box under the Christmas tree can be a real "teaser" for many days before it is opened.

There are many booklets available on tying fancy bows, but actually there are a few basic steps for making the simplest decoration attractive.

Generally speaking small designs belong with small boxes, whereas a large box is ideal for using an important center design such as a big Santa Claus or bright Christmas tree.

Choose a ribbon to either match a color in the paper design or else to create a brilliant accent. Stay away from dark bows on dark-background paper.

To wrap a box smooth and snug start out with a solid surface on which to work and all the supplies you will need. Cut the paper so that it wraps all the way around the container plus an extra two inches for overlap. Extend the ends one inch longer than half the depth of the box. Miter the corners and secure with tape, seals or rubber cement before trying to add the ribbon.

For a round container, cut the paper so that it folds just to the center of each round end.

## Wife of Sandian Wins Safety Slogan Awards

Marie Mitcham, wife of W. R. Mitcham, 2411, has won two consecutive awards in National Safety Council "Safety Sayings" contests. Marie's entries were both captions for cartoon drawings of safety situations.

In a letter of congratulations, Paul Jones, Director of Public Information for the Council, said, "We are glad to have you in the contest and hope you can keep right on sending in your very excellent entries."

## Radio Engineers Plan Christmas Party for Dec. 21

The Albuquerque-Los Alamos Section of the Institute of Radio Engineers is planning a Christmas party Friday, Dec. 21, at the Kirtland Officers Club. Refreshments and late-evening snacks will be included in the \$1.50 ticket price. The party will begin at 9 p.m.

Tickets may be obtained from W. T. Moffat 5240, Max Weber 5120, Gene Newlin 6010, George Oltman 1423, Bob Spence 5222 and Merrill Jones 1611.

## Welcome Newcomers

From Albuquerque	
Josie M. Baca	2541
June M. Coulter	3152
Rose Marie Etherton	4135
Diane R. Even	7224
Loyce M. Gambrel	2711
Carmen Garcia	7225
Peggy Hagan	7225
Billye C. Hart	2333
Edward Haut	7231
Ciriaco Herrera	2419
Agnes A. Hunter	2333
Cynthia L. Kelly	2513
Olga B. Lamb	7225
William Lichtenberger	2461
Mary L. Lowe	5241
Ruth Morris	2731
Frances E. Niskern	2333
Matsie L. O'Keefe	2731
Dolores J. Perez	4135
Frances A. Robertson	5125
Manuel R. Sanchez	2419
Ruth C. Scates	5512
Genelia B. Seiler	2221
Carlos R. Shelton	7224
Benjamin Slesinger	4501
Arthur C. Vogen	2419
Robert K. Vokes	4113
Gerald B. Witt	2153
LaVerne J. Zipprich	1626
California	
Juanita A. Vincent of Livermore	1831
Colorado	
George V. Porter, Jr. of Colorado Springs	3123
Illinois	
Daniel W. Davis of Decatur	2151
Miloslav J. Navratil of Chicago	1246
Indiana	
Earle C. Williams of Hammond	1246
Iowa	
Charles T. McKiernan of Des Moines	4113
Kansas	
James B. Walston of Wichita	2463
Massachusetts	
Harold C. Andrews of Lynn	2713
Michigan	
Wayne Cottingham of Flint	2722
Simon Herman of Flint	3154
Minnesota	
John T. Lindman of Minneapolis	2723
Missouri	
Donald W. Jones of Kansas City	5531
James E. McCreight of Kansas City	2721
Robert D. Patterson of Kansas City	2723
New Jersey	
Daniel F. Finocchio, Jr. of Dover	1463
New Mexico	
Christine C. Gomez of Las Vegas	2333
Homer G. Pierce of Nambe	7221
Leslie G. Shults of Artesia	3151
Oklahoma	
Rose Mary Hyde of Oklahoma City	7225
Howard E. Thomas of Cherokee	7241
Texas	
George W. Stohner of El Paso	4152
Washington	
Vurlis C. Looney of Seattle	2131



CHRISTMAS PROGRAMS to be presented by the Sandialiers' Club group include appearances Dec. 16 at the Coronado Club, Dec. 21 at the Sandia Base Officer's Club plus appearances on local radio and TV stations. Seated, L to R, are Tom Tinkle 2551, Cleo Hughes 1262, John Dobias 2231, M. J. Davis 5513, Ken Pope 1473, and Marilyn Wright,

accompanist. Standing, top row, are Robert Dineen 2132, P. E. Stephens AEC, and Rex Elder 5531, director. In the foreground, seated, are Wilber Stearns 1445, Thomas D. Burke, Jr., Harold Hurt, and Harold Lyness, all Sandia military. Not shown are J. C. Russell 1621, George Byrne 5120, Ed Hockett 5524, George Eddy and Erlon Giddings, military.

### Happy Traditions of Christmas Come from Many Varied Cultures

All of the traditions of Christmas—the evergreen trees glittering with lights and tinsel, the halls decked with holly, the yule log glowing in the fireplace, the mistletoe and the holly wreath, the children's anticipation of Santa's visit, the singing of carols—set a mood of joyous reverence as we observe Christ's birthday.

Many of the traditions we observe during the holidays are time-honored customs pre-dating Christianity and were contributed at different eras of history and by many different national groups.

#### Mid-Winter Festival

Mid-winter has long been a festival occasion throughout the world. The Romans celebrated the carnival of Saturn and the Kalends, the Roman New Year. Barbarian clans of Northern Europe observed "the return of light," when the short cold winter days began growing longer and warmer.

Feasting in the Scandinavian countries was the result of a practical tabulation of the grain on hand and the number of livestock it could feed through the winter. Remaining animals were slaughtered and feasting followed.

Other traditions came later after the advent of Christianity, but these too were contributed at different times and by different national cultures.

#### St. Nick, Bishop of Lycia

In the early fourth century St. Nicholas was Bishop of Lycia in Asia Minor. He was a great benefactor of children and secretly gave his money to those in need. In time all gifts from unknown sources were ascribed to him.

After his death it became the custom for parents to give gifts to their children on Dec. 6, St. Nicholas' feast day, saying that the gifts were bought by him.

#### Santa Emerges

St. Nicholas came to America with the early Dutch settlers. Once here, he underwent several changes from the thin ascetic Saint in clerical robes who distributed his presents from the back of a white horse to emerge into the Santa Claus that we know today—fat, jolly and red-cheeked. The sleigh and reindeer were contributed by the Norwegians.

The custom of giving gifts is attributed to St. Nicholas as well as to the three Magi who brought gifts of gold, myrrh and frankincense to the Christ-child.

Christmas carols can be traced back to St. Francis of Assisi in the Italian town of Greccio in 1223. To bring the spiritual meaning of Christmas closer to his people, St. Francis presented a "miracle play" of the first Christmas. The singing in the play was the first Christmas music in the language of the people.

#### Germany Contributes

Although the Romans used tree branches to decorate their homes in observing their New Year and the early Norsemen used evergreens as a talisman against the shortening days of winter, the decorating of evergreens came from Germany.

The Germans would cut boughs of hawthorne or cherry—sometimes whole trees—and place them indoors in a pot of water. By careful tending they would make the trees bloom late in December. There was much competition for the prettiest tree.

#### Sacred Symbolism

There is a sacred symbolism to the decorations of our Christmas trees, Matt Ungerman, 2223, says. Matt has been in charge of the Sandia Corporation Christmas displays and decorations since 1951. His special hobby is Christmas decorating.

The little bells, Matt says, are symbolic of "happy tidings" and the evergreen is the symbol of everlasting life. The red ribbons allude to the blood that Jesus shed for us and the lights mean happiness and cheer.

# Memorable Christmas Holiday Recalled by Sandia Employees



William E. Caldes  
... we three ...



Marion A. Lantz  
... friendly workers ...



Charles E. Runyan  
... tree, snow, sun ...



Virgil A. Harris  
... blizzard, chili ...



Conrad W. Roeschke  
... popcorn chains ...



Harvey S. North  
... Texas reunion ...



Elizabeth F. Foley  
... no egg nog ...



Bennidetto J. Russo  
... P. O. box bulged ...



W. M. Anderson  
... strange sight ...



Albert J. Rizzoli  
... all good ...

It's true that Christmas rolls around every year on Dec. 25 but has there been one observance that particularly stands out as being your most memorable Christmas?

To obtain a sampling of notable holidays, the Sandia Lab News contacted some of the employees who have been with the Corporation the longest.

Bill Caldes, 5511, had little trouble deciding. He said, "My best Christmas was in 1946—our first with a baby in the house and also our first in Albuquerque." Bill and his wife now have four children to help trim the tree.

Marion Lantz, 2152, had a quick reply: "My first in Albuquerque. Most of us were new at Sandia in 1948 and there was a fine Christmas party in the machine shop where I worked. There was music, refreshments, dancing and even a local talent show. The whole department drew names for exchanging presents. It was really a friendly Christmas."

Charles Runyan, 2120, sounded rather nostalgic when he described his "best" Christmas. "It was in 1943 when my wife and I first arrived at Los Alamos," he said. "My

wife's a city gal and I was used to the dull, cold winters in Indiana. We drove to the Valle Grande in the Jemez Mountains to cut a blue spruce. There was three or four feet of snow but the sun was so bright you could climb around in shirt sleeves."

Virgil Harris, 5216, is sure winters aren't the way they used to be. "My most memorable Christmas," he said, "was 1948 here in Albuquerque. We had two big blizzards in a row and to top it all the gas line went out in our block. We had a fireplace and lots of wood so the neighbors picked up their favorite chairs and came over. They couldn't walk in the front door because the snow was banked too high against it. We had a pot of chili heating all day on the fireplace grill and the atmosphere was strictly homey. We felt very close to each other."

Conrad Roeschke, 1456, felt that his first Christmas at Los Alamos in 1944 was the most unusual. "The commercialized features of the holiday were lacking," he explained, "so we had to make all of our tree and house decorations. We made trimmings out of colored paper, tin foil, popcorn, cookies and food. There were no tree lights or

candles but it was plenty colorful just the same."

Harvey S. North, 5211, finds Christmas synonymous with family. "My best Christmas was in Hillsboro, Tex., with 22 close relatives on hand. Our tree was ceiling high and piled beneath it were 125 packages. It was some sight!"

Elizabeth Foley, 4131, decided her most memorable holiday was the one with the least Christmas atmosphere. She explained, "One Christmas I went to New Orleans and it seemed more like the Fourth of July. Everyone had their windows and doors open and were sitting around drinking iced tea."

Ben Russo, 5513, also chose his first holiday at Los Alamos as the most outstanding. He said, "We arrived there close to Christmas and had to make our own presents as well as decorations. All the mail for Los Alamos was sent to P. O. Box 1663 in Santa Fe and a military truck would go down every day to pick up the packages and letters. But that wasn't the least of the troubles—people were having furniture delivered to the P. O. box and one man even had his car shipped to Box 1663. Add to that the burden of Christmas packages and you can imagine the turmoil. Here at Sandia I appreciated the new policy in 5500 last year of giving food, toys and clothing to a needy family rather than exchanging Christmas cards."

Bill Anderson, 2723, had a ready answer, "My first Christmas in Albuquerque stands out. We had just come from the ice and snow of Chicago and the warm sun here was a real treat. We have no desire to leave the Land of Sunshine."

Al Rizzoli, 1624, probably summed up the way most people feel about Dec. 25 when he said, "All Christmases are good ones." He added, "Coming from Massachusetts in 1945 the friendliness of New Mexico neighbors and adobe houses decorated with luminarios made that first Christmas here something special."

### Welding Society Will Hold Christmas Party Saturday, Dec. 15

Annual Christmas party of the American Welding Society will be Saturday, Dec. 15, Tom Dadian, 2713, reports. The dinner dance will begin at 7:30 p.m. in the La Placita Dining Rooms in Old Town.

### H. E. Martin Appointed To Coronado Club Board

Herschel E. Martin, AEC-ALO Budget Division, has been given an interim appointment to fill a vacancy on the Coronado Club Board of Directors. He will serve until the next annual meeting of the board.

## Promotions

GEORGE VOIDA to supervisor of Section 1462-1, Electronic Packaging Division.



George has been working in printed circuits and packaging since he started with the Corporation in June, 1955.

Previously he was employed eight years by P. R. Mallory Co. of Indianapolis, producers of electric components and electrical chemical products.

Before World War II and for 14 months afterwards George worked for U. S. Rubber Co. in Indianapolis in rubber technology, quality control, research and development.

He has a Bachelor's degree in Chemistry from Purdue University.

George served four years in the Navy as engineering and deck officer aboard cruisers, transports and LST's in both American and European Theaters.

GEORGE L. HUTCHINSON to supervisor of Control Section 2232-1, Packaging Division.



He has been with the Corporation in the Assembly or Manufacturing Engineering Departments since 1948 with the exception of one year when he returned to Illinois to farm.

George was educated in Illinois schools and was a farmer before joining Sandia.

He served five years in the Air Force on ground crews and part of the time was stationed at Kirtland Air Force Base.

RICHARD R. PRESTON to supervisor of Section 1462-2, Electronic Packaging Division.



"Dick" has been working in plastic encasement development and printed wiring since he came to Sandia in November, 1954.

For the previous two and one-half years he was senior project engineer for Reliance Electric and Engineering Co. in Cleveland, Ohio.

He was employed nine years by General Motors in La Grange, Ill., in diesel electric locomotive and electric insulation work.

During World War II Dick was with the Naval Torpedo Station in Newport, R. I., and Amertorp Corp., in Forest Park, Ill.

He has a Bachelor's degree in Electrical Engineering from the University of Illinois and is a member of the American Institute of Electrical Engineers.

## Service Anniversaries

### FIVE YEAR PINS

Dec. 14-20

Richard McCann 5222, Pedro Pino 7231, Patricia Romero 2112, Evelyn Abbott 7223, Helen Allen 2462, Elsie R. Willis 7121, Robert Berg 2713, John Johnson 2331, Edwin Wahlstrom 2112, C. P. Bortnaik 7221, Ruby Childers 2313, James Fitch 2221, and Bernard Guerrero 4153.

Dec. 21-27

Lucille Sanchez 3153, Lemoyne Browning 2711, Theodore Smart 1452, Lavern Dumond 2411, Carrie Vick 4135.

G. T. Kleindienst 2232, Howard Melling 2152, Josephine Sandusky 7225, Theresa DeBaca 7225, Eugene Drake 2443, Aileen Moran 7225, Milton Guest 2232, Carl Hawk, Jr. 7241, and Propocpio Lopez 2112.

### TWO YEAR CERTIFICATES

Dec. 14-20

George Hoskins 5521, Sarah Florence 7314, Voris Hope 2463, Arthur Savage 7132, Charles Cundiff 2551, Albert Murphey 2552, Olive Barwick 3152, Donna Glenn 7222, and Rafael Carrillo 2461.

Dec. 21-27

Don Swanke 7132, Robert Wallis 5214, Friend Hasenkamp 1634, Dolores Carlson 7225, Phillip Higgins 2553.

Lowell McKim 2462, Charles Sargent 7222, Francis Macek 5522, Juan Doyen 7411, Marian Gould 7324, and Mary Henry 2225.



Florence and Matt Ungerman

"—sacred symbolism—"

# Boiler Plant Operation Part of Dep't 2410's 'Housekeeping' Job



DAILY INSPECTION of the steam plant is performed by the Plant Engineering Department, 2440. Here Carl Whitcomb, 2443, and L. D. Chapman, 2414, go over the steam flow chart which tells how much steam has been used during any given time period.

A comfortable place in which to work—this the employees of Sandia Corporation take for granted. The Corporation offices and buildings are well lighted, clean, well ventilated and temperature controlled.

But these things do not just happen. Here is a behind-the-scenes account of some activities which contribute to this end result.

Sandia Corporation's "house-keeping" organization is the Plant Maintenance and Services Department, 2410, headed by J. L. Rowe. Maintenance crews—electricians, pipefitters, repairmen, inspectors, janitor and others—work around the clock to insure Sandians the best of working conditions.

One small segment of this organization is the Heating Plant Section, 2414-2, headed by R. L. Boase, who reports to L. D. Chapman, 2414.

### Four Boilers

The four huge boilers located in a building a few blocks south of the Fire Station provide heat for the Corporation and all of Sandia Base. More than seven miles of steam pipes are needed to supply the Corporation area alone.

The four-story-tall boilers are almost automatic in operation. A boiler operator and two boiler firemen operate the plant and outside heating units during each eight-hour shift. They check the numerous dials and gauges that indicate the degree of heat and the amount of pressure maintained in the boilers.

The outside boiler firemen inspect all mechanical equipment and auxiliary units each shift and make minor repairs when needed.

Not all of the four boilers are needed at any one time to supply the necessary steam. In the summer two boilers are kept on standby and even in winter one is held in reserve.

### Fuel Switch

The boilers can be switched into operation immediately from standby in case of any emergency. Gas is the usual fuel for the boilers but a complete diesel fuel system is maintained to insure operation of the plant in case of a gas failure.

A generator and an independent electrical power system are also on hand in the event of a commercial power failure.

All of the water fed into the boilers to be heated into steam

goes through a water softening system. Continuous tests are run to determine the amount of chemicals required to keep the water at the desired level of softness.

### Water Softener Maintenance

In addition to these water softeners, the boiler firemen maintain the water softeners needed in some laboratories and in the air conditioning units in many of the Corporation's buildings.

During the summer months, the boiler firemen take care of the swimming pool filtration equipment at the Coronado Club.

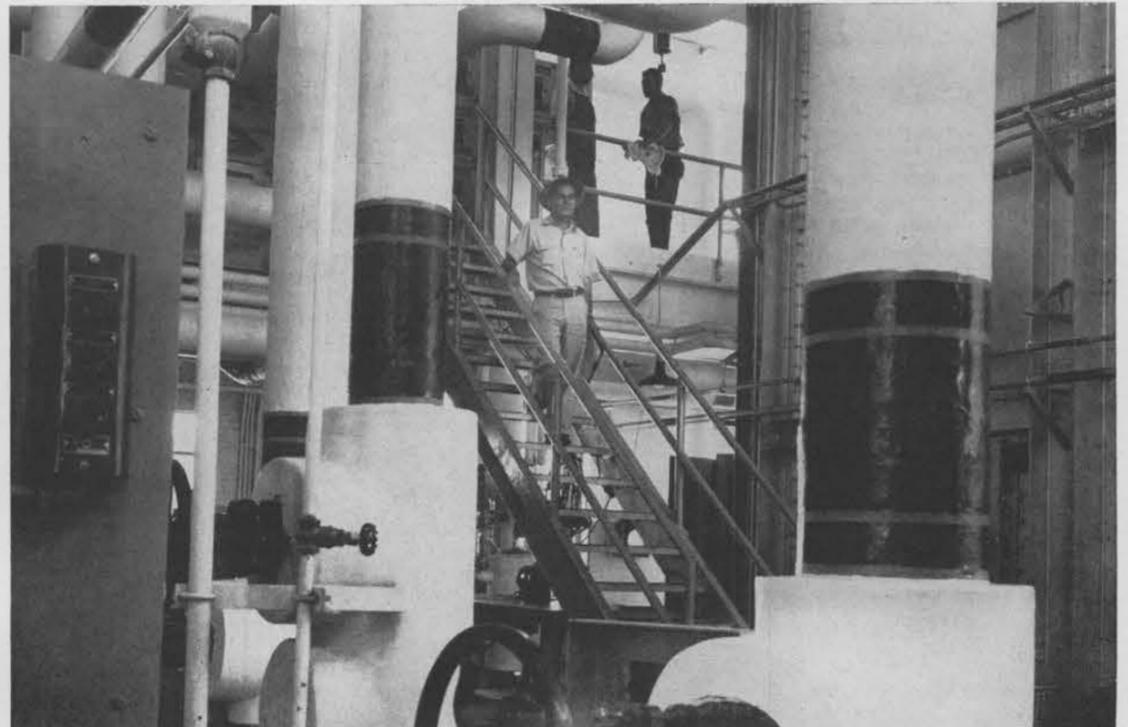
Operation of the heating plant meets specifications determined by the Plant Engineering Department, 2440. A daily check is made by the engineers to see that standards are met.

Plant Supervisor Boase, who takes pride in his heating plant, always rates high on the inspections. The efficiency and cleanliness of his plant "is the best in the Southwest" the inspector has said many times in his reports.

(The Sandia Lab News will report on other around-the-clock activities of the Plant Maintenance and Services Department in future issues. — Editor's note)



SECOND SHIFT boiler operators and firemen report to work as the day shift prepares to go home. L to R are Woodrow Lerke, H. M. Austin, and Ramos Salome, all Pipefitting and Plant Oper. Div.



GIANT STEAM PIPES frame R. L. Boase, supervisor of the Heating Plant Section, as he descends from the upper levels of the plant. The boilers are four stories high and are surrounded by catwalks and three working levels. Silhouetted in the background are Elbert Quail and Homer Lawyer.



FUEL CHANGEOVER from gas to diesel is performed regularly for training purposes. In case of a gas failure, the steam plant could switch immediately to diesel. William Dickens, left, and Elbert Quail, boiler operators, man the damper controls during changeover.



PREHEATING THE WATER that flows into the boilers is done at the top level of the plant with the large heating tank shown here. Air is also removed from the water in this heater. L to R are Elton Carroll, Homer Lawyer and Elbert Quail. William Dickens is behind the first group looking over a pipe.



**DOUBLES CHAMPS**—Al Gruer, 5210, and George Duffield, 5212, emerged champions of the Sandia Corporation Employee's Horseshoe Doubles Tournament by defeating 2400 team 4-1 in the finals.

## Gruer, Duffield Champs of Doubles Horseshoe Tourny

The 5200 horseshoe doubles team, Al Gruer and George Duffield, took the Sandia Employees Doubles Horseshoe Tournament championship by defeating Billy Rogers and Fonzo Cossel of 2400 in the final games 4-1. Duffield was runner-up in singles horseshoe competition.

Gruer and Duffield won the first three games of the match but Rogers and Cossel fought a see-saw battle all the way. The 2400 team won the fourth game throwing 67 per cent ringers. Team 2400 averaged 32 per cent ringers in the finals while 5200 averaged 30 per cent.

Gruer and Duffield won the first round match of the tournament by a forfeit from 5100. They defeated the 2700 team, Jack Underwood and Tony Garcia, 4-0. In the semi-finals 5200 beat Paul Callies

and Leo Adams of 2500 4-2 in a close contest.

The 2400 players defeated a very strong 2100 team, Billy Sweatman and Stanley Eastman, in a match that required the full 7 games to give 2400 the necessary 4-3 win.

In the quarter-finals 2400 defeated Parker Burns and Harvey Long of 7200 4-1. In the semi-finals highly-rated 2200, Ted Monahan and Dennis Sparger, fell to 2400 4-2.

### Single Sandia Women Invited to Tea Dance

The bachelor officers of Kirtland and Sandia Bases have issued an invitation to all single female employees of Sandia Corporation to attend a tea dance at the Kirtland Officers Club on Sunday, Dec. 16, at 2:30 p.m. Refreshments will be served, the invitation said.

### Sandian Awarded Extra \$100

# Credit Union Hits \$2,000,000

"Pretty lucky" is the way Frank Alexander, 2711-4, describes himself after depositing the 2,000,000th dollar in the Sandia Laboratory Federal Credit Union. An extra \$100 in shares was deposited in Frank's account as a gift from the Credit Union to mark this milestone in the organization's growth. Frank also received a certificate honoring the occasion.

Frank has been a mechanical inspector in the Incoming Inspection Department, 2710, for almost two years. This was his first time to make a deposit in the Credit Union and he says he is "really surprised and happy" about the outcome.

So is Dale Bellamy, Credit Union manager, who sees the \$2,000,000 assets of the Credit Union as an indication of the thrift of Corporation employees. With almost 4,500 members, the average share amounts to \$450 per member.



**CERTIFICATE** honoring Frank Alexander, 2711-4, left, who deposited the 2,000,000th dollar in the Sandia Laboratory Credit Union is presented by Robert E. Blount, President of the Credit Union as a gift from the Sandia Laboratory Federal Credit Union.

### League Officers Named For Basketball; 16 Teams Will Compete

Leo White, 1471, is the newly-elected Chairman of the Sandia Employees Basketball Association. Jerry Cole, 2152, is Vice-Chairman and Mel Otero, 2521, is Commissioner.

Officers were elected recently during the organizational meeting of the newly-formed league. Sixteen teams will compete, a total of 240 employees participating.

Games are played each week-night except Friday in the Old Base Gymnasium at Main and F. Sts. Game times are 6:45, 8:00 and 9:15 each night. Play will be suspended from Dec. 21 to Jan. 2 in observance of the holiday season.

## Fire is Serious Threat to Every Christmas Tree; Yours Safe?

Christmas trees and holiday festivities go together. The sight of an evergreen tree trimmed with shiny colored balls and tinsel or popcorn strings and chains of colored paper recalls Christmas at home with the family or among close friends.

Despite the gaiety of a Christmas tree it can easily become a booby trap of the most dangerous nature. A short circuit in a chain of lights, nearness to an open fireplace or lighted candles all might provide the spark turning the highly combustible pine needles into a ball of fire.

There are preventive measures which can reduce this flammability and also increase the tree's beauty.

After purchasing your tree saw off the trunk on a slant at least

an inch above the original cut. Stand the tree in a narrow-mouthed bottle or tin containing a solution of one-pound ammonium sulfate or calcium chloride to one and one-half pints of water for each four feet of tree. Stand the tree in this solution in a cool room until all the liquid is absorbed. This increases the fire resistance of your tree. Keeping the tree base in water even after it is trimmed helps keep the needles from drying out.

Like snow on your tree? Mix a small box of soap flakes and water with an electric or hand beater until the suds are stiff enough to stand in points. Daub it on the tree branches, then sprinkle on packaged snow. More protection against fire and the snow stays on the branches—instead of the floor.

### SHOPPING CENTER

#### CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication.

#### RULES

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

Next Deadline: Noon, Dec. 19

#### FOR SALE

- WASHING MACHINE, Thor automatic, \$25. Uhllein, Alb. 6-2075.
- WASHER, Bendix, fully automatic Economat, \$125. Hunter, 2315 Hendola Dr. NE, Alb. 9-1089.
- LAWN MOWER, \$10; Tricycle, \$5; Taylor Tot, \$5; bird cage, \$2; 10'-2" door gate w/hardware, \$15. Allen, Alb. 5-9778.
- TOYS, 16" model roadscraper, dump truck, steam shovel, for \$14. Boy's maroon corduroy jacket, size 12, \$8. Millard, Alb. 9-2039.
- 2-WHEEL TAILER, 4x6 wood bed w/steel running gear, 2 good extra tires, \$30. Stuckey, Alb. 5-2442.
- MERCEDES BENZ 190-SL, will take smaller car for equity. Marks, 320 Gen. Bradley NE.
- FREEZER, chest type, 10 cu. ft., \$160. Refrigerator, 7 cu. ft., \$60. Quant, Alb. 6-9287.
- 2-BR. HOUSE, near bases, detached garage, workroom, walls, trees, shrubs, lawns, air-conditioned, \$9,750. Black, 836 Madeira SE, Alb. 5-8326.
- HEATER, 50,000 BTU Butane; heater, 35,000 BTU, natural gas. O'Connor, Alb. 4-2840.
- ICE SKATES, boy's, size 6, with guards, \$5. Cazier, Alb. 9-0340.
- '29 MODEL A FORD, Longenbaugh, Alb. 8-0366.
- DINETTE SET, maple finish, 4 chairs, 1 leaf, table pads included. Maginnis, Alb. 9-0068 after 5:30 p.m.
- BICYCLE, girl's Schwinn, 26 in., \$25. Washing machine, wringer type w/pump, 9 lb. capacity, \$25. Roper, Alb. 4-1911.
- '51 NASH RAMBLER station wagon. Stoner, Alb. 6-0704.

- RADIO, Hallicrafters S-41G communications receiver, speaker or 'phones, covers standard broadcast band, \$25. Hughes, Alb. 9-0135.
- '54 PLATT MODERN HOUSE TRAILER for sale or trade on house, \$3500. Hopkins, Alb. 6-1970 or Alb. 6-5849.
- LADDERS, 24' wood extension, \$10; 12' wood straight, \$5; pair new ladder jacks, \$5. Shane, Alb. 8-2376 after 5:30.
- '50 STUDEBAKER, 4 dr. sedan; loaded w/accessories, includes O.D., \$295. Mares, 509 San Pablo NE after 5 p.m. and weekends.
- WASHER, Kenmore, wringer type; set double tubs, steel, \$25; Sport King automatic 10-shot, \$29. Drake, Alb. 9-0544 after 5:30 p.m.
- RECORD TURNTABLE, 45 RPM automatic, for use with radio, \$7.50; child's 78 RPM phonograph in cabinet, \$5. Pope, Alb. 5-6702.
- '46 CHEVROLET, R&H, dependable transportation, \$95. Garratt, Alb. 9-0749.
- TELEVISION, 16" G.E. table model with wrought iron stand, \$60. Argus C-3 camera w/accessories, \$30. Mills, Alb. 9-2130, 8027 Princess Jeanne NE after 5.
- DROP LEAF TABLE, Duncan Phyfe, mahogany, two extra leaves, complete pad set, \$30. Newfield, Alb. 5-9743 after 5 p.m.
- INGERSOLL RAD IMPACT WRENCH w/top and drill attachment, \$65. McClanahan, Ext. 2-3144.
- VANETTE, '48 Ford; engine, tires excellent. Ideal for camping or business. Emrick, Alb. 9-0273.
- LADIES' SUITS, 2 black gabardine, size 10, \$5 each. Smitha, 8607 Menaul, Alb. 9-1096.
- BABY BED, \$12. Drake, 1717 Virginia St. NE, Alb. 9-0743.
- BOXER PUPPIES, 6 weeks old Christmas, AKC registered, fawn w/black mask, \$75. Stamm, Alb. 4-4325.
- BED SPRINGS, full size, coil, \$6. Klassen, Alb. 6-2775.
- PEDIGREED SIAMESE KITTENS, 3 months old. Hardwick, Alb. 9-0916.
- SHOTGUN, 16 gauge over-under Marlin, \$40. Armour, Alb. 9-1805.
- PEDIGREED FRENCH POODLE PUPS, brown standard, \$100. Bolduc, Hobbies Mtn. Ranch, 1/2 mile off US 66 on North 10. Ext. 46140.
- SEWING MACHINE, electric, blonde cabinet model. Kenmore. Complete set of attachments, instruction manuals, \$125. Tanner, Alb. 2-9026.
- '47 CHEVROLET business coupe, new battery, \$150. Piano, mahogany spinet, \$350. Carroll, Alb. 9-3464.
- TAPE RECORDER, Pentron, in good mechanical condition, needs cabinet, \$60 or trade for 3-4 speed record player. Shaum, Alb. 5-1904.
- TRUMPET, "20th Century," case, mute and music stand, \$25. One "Orpheus" and one "Stella" guitar, \$12 each. Hunter, Alb. 9-3679.

- MATTRESS, king size Beautyrest and box springs w/frame and bookcase headboard. Hansen, Alb. 93397.
- ERECTOR SET, Big Gilbert No. 101 1/2, never used. Originally \$40, will sell for \$25. Gunn, Alb. 9-2740.
- DRAFTING TABLE, 31"x42" top, adjustable height and slant, hardwood, \$25. Bathroom lavatory, white porcelain, unused, \$17. Littrell, Alb. 5-2598.
- BEAGLE PUPS, AKC registered, black, white and tan markings, \$20 each; good Christmas gifts. Welker, 8510 Flower NE, Alb. 9-1179.
- PING PONG TABLE (2 piece) with complete table tennis set, \$15. Everett, Alb. 6-2642.
- CHAIRS, TABLE, 6 chrome-plastic chairs and linoleum-top wood table, \$40. Gowdey, Alb. 3-8216.
- NECCHI SEWING MACHINE, new, straight stitch, mahogany cabinet, new machine warranty, won in contest, \$170 or reasonable offer. Mitcham, Ext. 4-1173.
- '54 CADILLAC, 62 coupe, low mileage, power brakes and steering, w/w tires, RH, \$3195. Pyetzi, Alb. 5-6354.
- REFRIGERATOR, '56 Norge, \$165; bedroom suite, 3 pcs., oak, blonde finish, \$100; studio couch, chair, \$25. North, Alb. 6-6844.
- SKI POLES, aluminum, \$4. Hall, Alb. 9-3594.
- RECLINING CHAIR, turquoise; beige 3 piece sectional sofa; sell together or separately. Make offer. Tape recorder, \$40. Long, Alb. 9-1416.
- 2-BR. LOG CABIN, furnished in Jemez Mtns. 3 br. Albuquerque home, furnished or unfurnished. Knudson, Alb. 6-1837.
- FIREPLACE SCREEN, grate, 4 piece accessory set, \$10. Dark wood bookcase, \$10. Heuzel, Ext. 5-1295 after 5:30.
- WATER PUMP, MW, complete, tank and control, 1/4 HP Westinghouse motor, 250 gal. per hour, \$45. Fay, Alb. 3-6244.
- 2-BR. HOUSE w/attached garage, walled in yard, lawn and trees. Arrange terms. Smelser, 426 Charleston NE, Alb. 6-3108 evenings.
- EDISON CYLINDER PHONOGRAPHS, 2; 45 records, some Spanish. U. S. five dollar gold piece; sell or trade for U. S. coins or guns. Zaluga, Alb. 4-1564.
- Hi Fi CONSOLE, blonde, includes RJ enclosure, tweeter, TV, phono, AM & FM, guaranteed for 6 mos., \$295. King, Alb. 9-3778.
- POLOROID LAND CAMERA, Highlander, carrying case (lge) light meter, flash gun, \$75. Brooks, Alb. 6-9364.
- WELSH TERRIER PUPS, male, 2 months old. Patterson, Ext. 3-5143.
- SPICE CHEST, hand made and hand-rubbed finish, 8 drawer. Draper, Alb. 4-2743.
- DRAPES, one pair fully lined rose-colored, 16 in. wide and 84 in. long, \$25. Finley, Alb. 8-1157.
- '48 FORD, convertible, new tires and battery, good seat covers, \$150. Hawk, 1821 Florida NE, Alb. 6-6264.

- '47 CHEVROLET, 4 dr., rebuilt motor, \$150. Brown, Alb. 5-4349.
- MAHOGANY DOOR, 2 ft. 6 in. by 6 ft. 8 in. and frame plus hardware, \$15. Pritchett, Alb. 9-1721.
- YOUTH BED, \$15; 3/4 roll-away bed, \$15; RCA 45 record changer, \$5. Odell, Alb. 2-8727.
- BEAGLE PUPPIES, excellent for pets, show dogs or hunting. Finest ancestry obtainable. Will deliver Christmas eve, \$35. Donaldson, Ext. 4-6233.
- DELCO BATTERY for 12 volt system. Twenty-five month guarantee remaining, \$15. Kelly, Alb. 6-5429.
- RIFLE SCOPE, Hawk 4X scope, new, never used, \$40. Parker, Alb. 9-1750.
- COLLIE PUPPIES, registered, outstanding pedigree (International, Canadian, English champions). Reasonable. Meek, Alb. 2-1185.
- BICYCLE, boy's 26" lightweight, generator light, 3 speed, thornproof tubes, \$30. Thomas, Ext. 23287.
- PIANO, mahogany Spinet. Hayes, Alb. 9-0596.
- SKATES, men's size 11, \$8; girl's figure skates, size 2, \$6. Navy officer blues, whites, overcoat, cap, size 40. Fossum, Alb. 5-0535.
- BOXER, brindle, 1 year old, AKC Reg., show stock, trained, excellent with children, \$95. Reed, Alb. 9-4707.
- CLOTHES DRYER, Bendix, electric, \$50. Teeter babe, \$4. Stixrud, Alb. 9-0674.
- MACHINIST TOOL BOX and precision tools; Lionel electric train, aluminum double drain tubs, Eifert, 400 Grove NE, Ext. 21156.
- JAPANESE CHINA SET, 23-piece Narumi, \$20; teeterbabe, \$2.50. Villetta, Alb. 6-2766.
- OVERHEAD GARAGE DOOR with hardware, \$20. Flanaon, Alb. 9-4268.
- PICNIC TABLE, 12 cu. ft. refrigerator, wringer washer, vacuum cleaner, rollaway and youth beds, journal and ledger books. Mischke, Alb. 5-8357.
- HALLICRAFTERS S-53, half price (\$45), covers ham bands to 6 meters, also circular saw attachment for 1/4" drill—new, \$5. Woffinden, Alb. 6-4852.
- DOBERMAN PINSCHER, lovable puppies for Christmas, AKC registered. McGuire, 8036 Hannett NE, Alb. 9-1595.
- BEAGLE PUPPY, AKC registered, female, \$25. Holmes, 5811 Bellamah Ave. NE, Alb. 6-8203.
- '35 PLYMOUTH COUPE w/'47 Dodge motor; good transportation. Weaver, Alb. 2-5560.
- BEAGLE, male, handsome, good-natured, registered, \$20. Frye, Alb. 5-8364.
- RANGE, Magic-chef, full size, \$35; new part-a-crib w/mattress, \$25. Atkins, Alb. 5-8849.
- '54 SCHWINN BICYCLE, Varsity racer. Westerman, Alb. 5-5896 after 5 p.m.

#### WANTED

- PIANO, old, West, 9301 Alta Monte NE, Alb. 9-1878.
- RECORD CHANGER, used RCA 45 RPM; need not be in operating condition. Reidel, Alb. 9-4460.
- RIDERS to Dallas, Texas and vicinity. Leaving evening of Dec. 21st, returning Dec. 30th. Mamie Burg, Alb. 6-1083 after 5 p.m.
- PLAYGROUND EQUIPMENT, used set with swings and slide for yard use. Schreiner, Alb. 9-1208.
- ADDING MACHINE, used, portable. Shafer, Alb. 4-4019.
- BABY SITTING, 5 days week. Prefer young mother with small child in your home. Chavez, Alb. 6-4645 after 5.
- ICE SKATES, woman's size 8 or 8 1/2. Ray, Alb. 9-1330.
- B FLAT CLARINET, used, plastic or wood, good condition. Schafer, Alb. 6-2662 after 5 p.m.
- COMMUNICATION RECEIVER, covering ham bands. Bredow, Ext. 47146.
- DRIVER to share expenses and drive to St. Louis. Leaving Dec. 21 and returning Dec. 31. McClanahan, Alb. 3-6939.
- TO TRADE Harrington & Richardson model 922-22 caliber 9 shot for 22 or 410 rifle, 8 MM comedies or cartoons for children. Lopez, Alb. 3-8550.
- DRIVER or rider leaving for Minnesota Dec. 28. Judd, Alb. 6-8029 after 8 p.m.
- HOUSEKEEPER, attractive salary, care for 2 children, light housekeeping, 7:30 a.m.-5:30 p.m. Mon.-Fri. Sandin, 3516 Anderson Ave. SE, Alb. 6-8015.
- MATHEMATICS FOR INDUSTRY by S. E. Rusinoff; rent, borrow, buy; new or used. Gilbert, Ext. 43149.
- GUITAR, small and instruction books suitable for beginner. Johnston, Alb. 6-9762.
- HOME FOR KITTENS, only two left, calico kittens, just right for Christmas. Free delivery. Tatum, Alb. 2-9021.

#### FOR RENT

- WOMEN'S DORMITORY ROOMS, furnished; kitchen, laundry facilities; linen, maid service; television; walking distance to work, \$45/mo. Base Housing Office, 2-1154.
- HOUSE, partly furnished, automatic washer, 9607 Woodland NE, \$85 per mo. Gallingier, Alb. 5-3804 or Alb. 3-6636.
- 2 BR. HOUSE, w/garage, \$65 per month, water paid. Skelley, 447 Louisiana SE, Alb. 6-1559.
- ROOM, large, clean, adjoining bath. Brooks, 211 Tulane Dr. SE, Alb. 5-8936.

#### LOST AND FOUND

- LOST—coat, glove, w/fur lining; pocket knife w/pearl handle; pearls, 3 strand; glove, white; watch, white steel; wishbone pin; keys w/yellow tube; earring, silver & turquoise. Lost and Found. Ext. 76149.
- FOUND—Hat, fur trim; earring, turquoise & silver; St. Christopher medal; watch, man's; gloves, lady's black. Lost and Found, Ext. 26149.

# Lightweight, High Strength Plastics Substitute for Metal



GLASS CLOTH held by Francis Pendergast is impregnated with resin and rolled on a mandrel to form a lightweight high-strength cylinder such as the one held by James South, right.



FABRICATION of dust cover for an outdoor camera is started here by Richard Olive. He is placing a layer of resin-impregnated glass cloth on a wood mold. He will build the layer to 1/8" thickness.



FINISHED DUST COVERS are shown by Richard Olive. After the glass cloth and resin lay-up is completed, the entire mold is covered with a plastic bag and a vacuum created to force the air out.

With the number of ventilators on the roof as the only external indication of anything unusual, work is being done in Bldg. 834 that has never been done before. Here the Corporation's research and development engineers are exploring the use of new lightweight, high-strength materials as substitutes for metals as well as other uses.

Sandia's plastics shop contains some of the most modern equipment in the rapidly expanding field of plastics.

"Only a few years ago," recalls Harold E. Payne, supervisor of the Plastics Section 2124-2, "Sandia's plastics facility consisted of a small household refrigerator and a homemade oven." Today he can show a laboratory in which may be performed almost any type of plastic work known to industry.

### "Conference Laboratory"

With a background of heated presses, electronic ovens, complex molds, and a water-wall booth instead of the usual tables, chairs, and blackboards, conferences may be taking place at any time among scientists and engineers and the shop supervisor, craftsmen and organization 1600 process engineers.

E. R. Frye, 1621, a 1600 plastics process engineer, acts as a link between the plastics laboratory and the model shop organization. He maintains communication between the development organization and preproduction work involving new process development.

The successful materialization of a new design frequently depends upon the evolution of an appropriate process. This work relates to new designs rather than the conventional and strengthens the Sandia team approach to a successful product.

Mr. Frye also aided in the selection of the modern equipment in the plastics shop and in the flexible layout and arrangement of the facilities.

### Continuous Search

Harold Payne points out that the craft support is also found in other model shops of the 2100 organization. A model procurement service is performed by 2100 with the help of the purchasing organization and individual engineers for further effectiveness of this craft support.

A constant search is conducted by this model procurement service to locate and evaluate competent and unusual specialties services to augment the present shop facilities, which are probably the best available between the Mississippi River and the West Coast.

This common meeting ground—as one may consider the plastics shop and other shops in 2100—results in service "par excellence" for Sandia's R & D groups.

A visit to the plastic's shop housed in building 834 reveals some interesting applications in the world of glass and resin. Glass laminate layup, to use the words of the craft, is the process of working glass-thread cloth impregnated with resin plastics into a mold. It is pressed and cured and the final product is a form light and easily handled yet strong enough to withstand extremely rough treatment.

"The resultant shape when reinforced with lightweight foamed plastics," Harold relates, "weighs only a fraction of the same volume of aluminum, its strength-weight ratio is greater than that of the finest steel."

### Other Uses

Housings and cases for field testing instruments come from the shop. Battery boxes, bellows for special cameras, and even protective aprons are manufactured.

The craftsmen of the plastics age have given engineers a meth-

od of "potting" in which complete electrical assemblies are encased in plastic. Damage or malfunctioning as a result of vibration, moisture, cold, heat, fungus growths, and many other of the engineers' bugaboos often disappear when this coat of plastic is used.

### Compression Molding

Compression molding is also a skill of the plastics craftsmen at Sandia. Low production costs and precise physical dimensions are possible with the injection-type machine now on the floor.

"A new compression molding machine to be installed about the first of the year will be able to make large parts," according to Harold. A force of 600 tons (three times the present capacity) will then be available for molding.

Electronic equipment plays an important role in the plastics lab. Having the advantage of precise control and penetrating source of heat, a microwave oven heats instantaneously and welds large plastic parts in one second.

Though it hasn't been tried, some of the plastics craftsmen who are also culinary experts claim the oven will bake a cake in one minute or broil to perfection a 2-inch steak in 45 seconds.

Plastics techniques and materials are making even greater contributions to industry. The direct contact and support provided by the plastics shop, as well as all 2100 model shops, give design engineers the opportunity to profit promptly by these advances.



INJECTION MOLDING machine operated by Marvin Harvey is capable of producing small precision pieces in great quantities. A hopper feeds dry plastic powder into the machine's heating chamber where it is melted into a thick liquid. This liquid is forced into the mold where it is formed and chilled almost simultaneously.



FIFTY-TON COMPRESSION molding press is operated by Harold W. MacGregor. Plastic and rubber are molded under heat and extreme compression.



MICROWAVE PRESS welds seams in vinyl film. Kenneth L. Peterson operates the machine which generates heat through molecular action in material.



PROJECT SHOP SUPPORT to engineering organizations is discussed here by (L to R) Harold E. Payne 2124-2, James H. Davis 1224-2 and Frank J. Maloney 2124. The model is of Sandia Corporation's new modern plastics shop in recently remodeled Bldg. 834.