

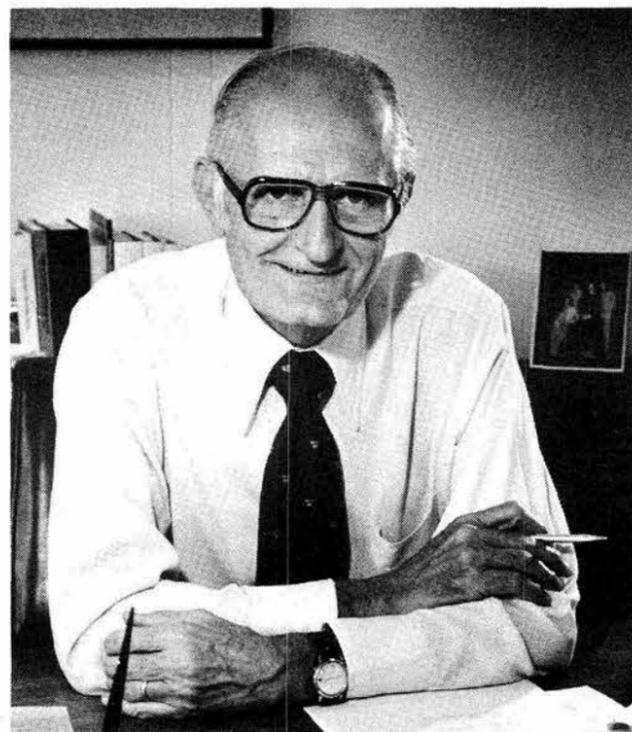


BEHOLD
THY
KING
COMETH



 LAB NEWS
CHRISTMAS 1980

holiday greetings



FROM President Morgan Sparks comes this Christmas message to Sandians: "My warmest greetings go to you and your family . . . may your Christmas be joyful and the new year fulfilling." Artist Jim Walston (3155) prepared this drawing. It's on the cover of the Labs' Christmas card sent to retirees—now 1925 in number.

Supervisory Appointments

TONY CHAVEZ to supervisor of Zone "D" Operations Section 3612-5 (a newly created section under Plant Facilities Division), effective Dec. 1.

Joining the Labs in November 1970 as a mechanical apprentice, Tony graduated from the program in 1975. He worked as a refrigeration mechanic and, more recently, has been a standards analyst in Maintenance Operation Planning Division 3615.

Tony was in the Army from 1967-70, serving a 19-month tour in Vietnam. Off the job, he enjoys hunting, fishing and camping. He and his wife Lalie have two children and live in SW Albuquerque.

* * *

TOM WRIGHT to supervisor of Theoretical Division 4231, effective Dec. 1.

Since coming to Sandia in 1969, Tom has worked in both theoretical and plasma theory organizations. In his new position, his division will provide theoretical support to simulation experiments.

Tom earned a BS in physics from St. Bonaventure University (NY) and his MS and PhD, also in physics, from NMSU. He is a member of the American Physical Society. Tom's leisure time interests include classical guitar, tennis and mountaineering. He and his wife Judy have three children and live in the NE heights.

* * *

EARL CUMMINGS to supervisor of Zone "C" Operations Section 3612-3, effective Dec. 1.

Earl joined the plant engineering plan-

ning group three years ago following his 10-year association with the Labs as a heating/air conditioning control consultant; his previous work spanned 25 years in the control industry.

Earl attended the University of Utah and served four years in the Air Force in Korea from 1949-52. His hobby is sailboat racing. He races a keel boat, using a specially built trailer to take his boat to Baja, the West Coast, and inland lakes in Utah, Arizona and Colorado. Earl and his wife Carol have four children and three grandchildren. They live in the NE heights.



EARL CUMMINGS (3612-3), TONY CHAVEZ (3612-5), and TOM WRIGHT (4231)

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Significant Achievements 1980

A special issue of LAB NEWS is planned for Jan. 23. That issue will be devoted to *Significant Achievements 1980*, a compendium of the Labs' technical accomplishments during the year just past, as described by the Labs' technical department managers. This summary of the Labs' activities will provide Sandians with an overview that should bring a greater understanding of the many facets of Sandia's work. *Significant Achievements* is planned as a yearly feature.

ECP Does \$800K-Plus

Sandians pledged \$812,998 in the recent 1981 Employee Contribution Plan drive—more than a 10% increase over last year's goal. This amount represents an average contribution of \$139.33, and over \$100 for each employee. The percentage of Sandia employees participating in ECP is 86.3%.

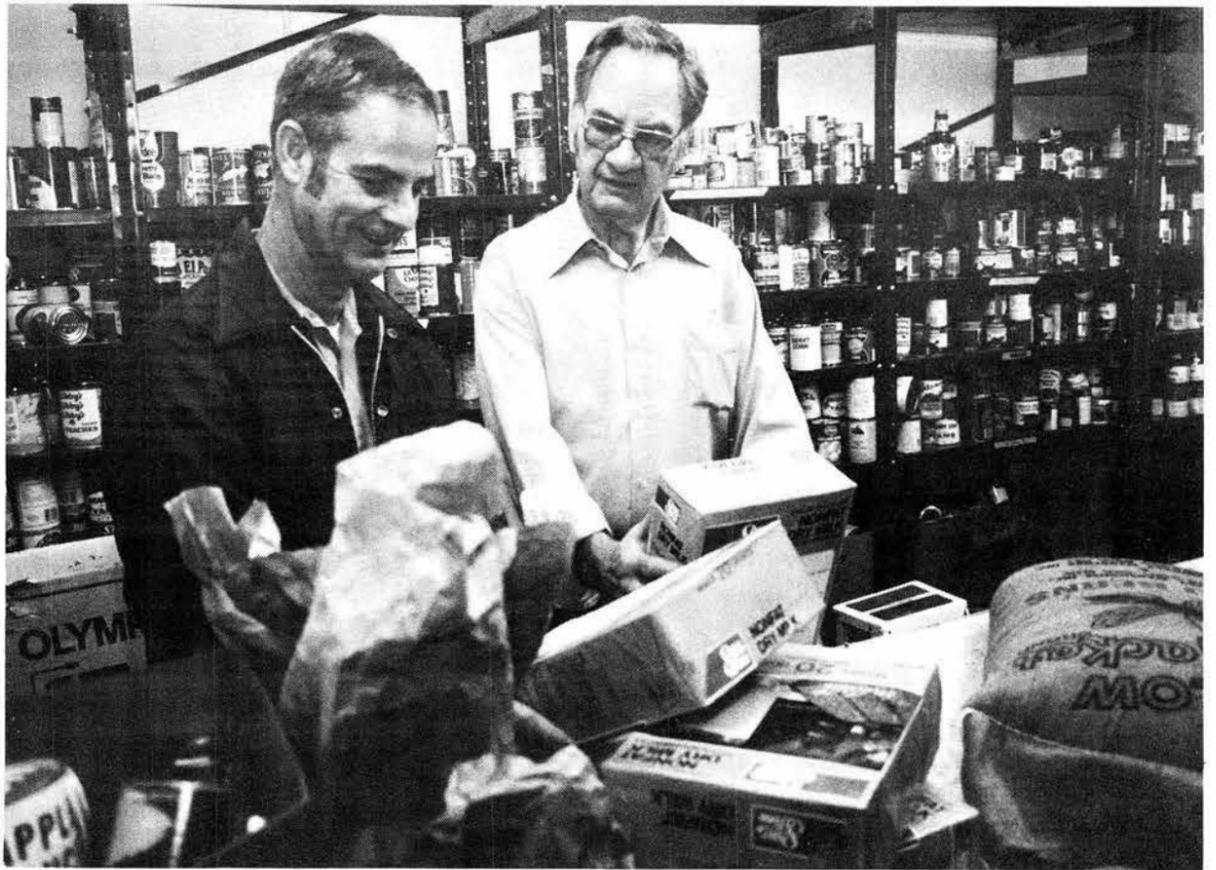
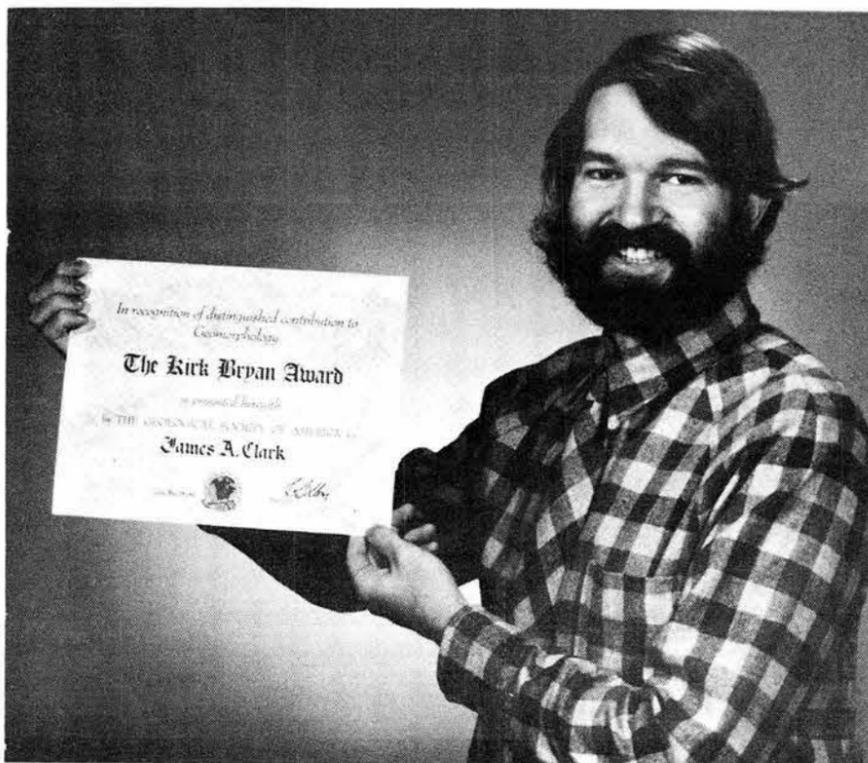
"Once again, Sandians led the community," said Solicitations Chairman Art Arenholz (3520). "It's been a tough economic year but Sandians came through again. United Way and the other agencies recognize our unmatched support and are extremely appreciative."

Noon Talks to Focus On Heart Problems

Sandia Medical is coming up with an ambitious program in January as part of its *Go For Health* series.

Albuquerque cardiologist Dr. Richard Lueker has been engaged to present four lectures on the heart during each Monday in January—the 5th, 12th, 19th and 26th, running from 12 to 12:30. Topics to be covered include symptoms of heart disease; risk factors associated with heart disease; diagnostic procedures for heart disease; and rehabilitation following heart disease. All programs will be videotaped and will be available in Medical.

JIM CLARK (4732) received the 1980 Kirk Bryan Award last month in Atlanta at the annual meeting of the Geological Society of America "in recognition of distinguished contributions to Geomorphology." The annual award was given to Jim and co-authors W. E. Farrell (Science Systems & Software, La Jolla) and W. R. Peltier (Physics Dept., Univ. of Toronto) for their paper, "Global Changes in Post Glacial Sea Level: A Numerical Calculation," published in the *Journal of Quaternary Research* (Vol. 9, 1978). After completing post-doctoral work at Cornell, Jim, a geologist, joined the Labs last year and has been working on hydraulic fracturing in tight gas sands.



JOHN HAALAND (right) helps Storehouse director, Rev. Judson Wagg, sort out donations of food.

The Storehouse Is Long On Giving

While the rest of us look forward to the festivities and gift-exchanging of the holidays, John Haaland (1213) is more concerned with those less fortunate. As president of The Storehouse, a unique organization helping the poor in Albuquerque, John is acutely aware of the hardships suffered by the 80,000 people in Bernalillo County whose incomes fall below \$7800 per year—the "official" poverty level.

"And that's just the 1979 figure," John tells us. "Inflation has ravaged the poor. The Storehouse steps in with emergency services—helping with rent and utility payments, providing clothing and food, and assisting after a crisis such as a fire. Being poor, these people seem prone to emergencies. We can't imagine the degree of their poverty."

The Storehouse, started in 1969 by the Rev. Titus Scholl, Lutheran Church of America, and was operated by volunteers until 1973 when it became an affiliate of



RUDY SANDOVAL, a retired Sandian, helps out by repairing TV sets.

the New Mexico Interchurch Agency. After several moves, The Storehouse acquired its own building in 1978 at 106 Broadway SE.

"Sandians have always been involved in The Storehouse," says John. "Nobel Johnson is one of the retirees who help out. Joe Gregory, also in 1213, and his wife Dorothy are active too—she serves on the board. Right now, we have about 130 volunteers and in one recent month we helped 1920 clients. The Storehouse has also received grants from Sandia. This year we were given \$500 from the Labs' Community Contributions fund.

"The Storehouse's greatest need right now is for infants' and children's clothes, but we welcome donations of anything—food, appliances, cash. Although Albuquerque churches account for most of our cash support, the community plays a large role in donations of goods—high schools, middle schools and elementary schools have collected truckloads of food."

So when you're making up your holiday gift list, save a place on it for The Storehouse. For information, call the director, the Rev. Judson Wagg, at 842-6491 or 842-6499. The Storehouse's hours are from 9 to 12 Monday through Friday.

Take Note

For 23 years, people in Weapons Analysis Directorate 1200 have been funding an annual Christmas project—"Shoes for Kids." Don Rohr (1212) and John Covan (1233) are co-chairmen of this year's activities.

"The program works," Don says, "because of cooperation — our employees donate the cash, Kinney's Shoes on Central gives us a discount on the cost, and schools in low income districts select the kids and deliver them to the store for fitting. It's a tradition with our organization and we're all pleased to be able to provide new shoes for 100-plus kids this year."

* * *

The South Highway 14 Village Project concentrates on supplying food to needy families in villages in the Manzano Mountains area. During the 16-year history of the project, the emphasis has shifted slightly—young people tend to leave the area, resulting in many older adults being left alone, and the project includes these people as well as families with children.

From a master list of about 100 households, 30 families (about half are elderly single adults or couples) are selected as recipients of food boxes which are delivered before Christmas. Foodstuffs include flour, sugar and other staples; canned foods; paper goods; turkeys or hams; oranges, apples, candy, nuts and pinto beans. Some emergency financial aid is provided year round, as funds permit.

The project is supported by sale of Sandia Labs' caps, aerial photos of the Tech Area and donations. People in Depts. 3160 and 3510 coordinate the project.

* * *

In keeping with the season, the Albuquerque Museum this Sunday, Dec. 21, presents a program for children of story telling, mime performance and "other good things." The Christmas Pudding Players will give two free performances, one at 2 p.m., the other at 3:15 p.m. Refreshments will be served between shows.

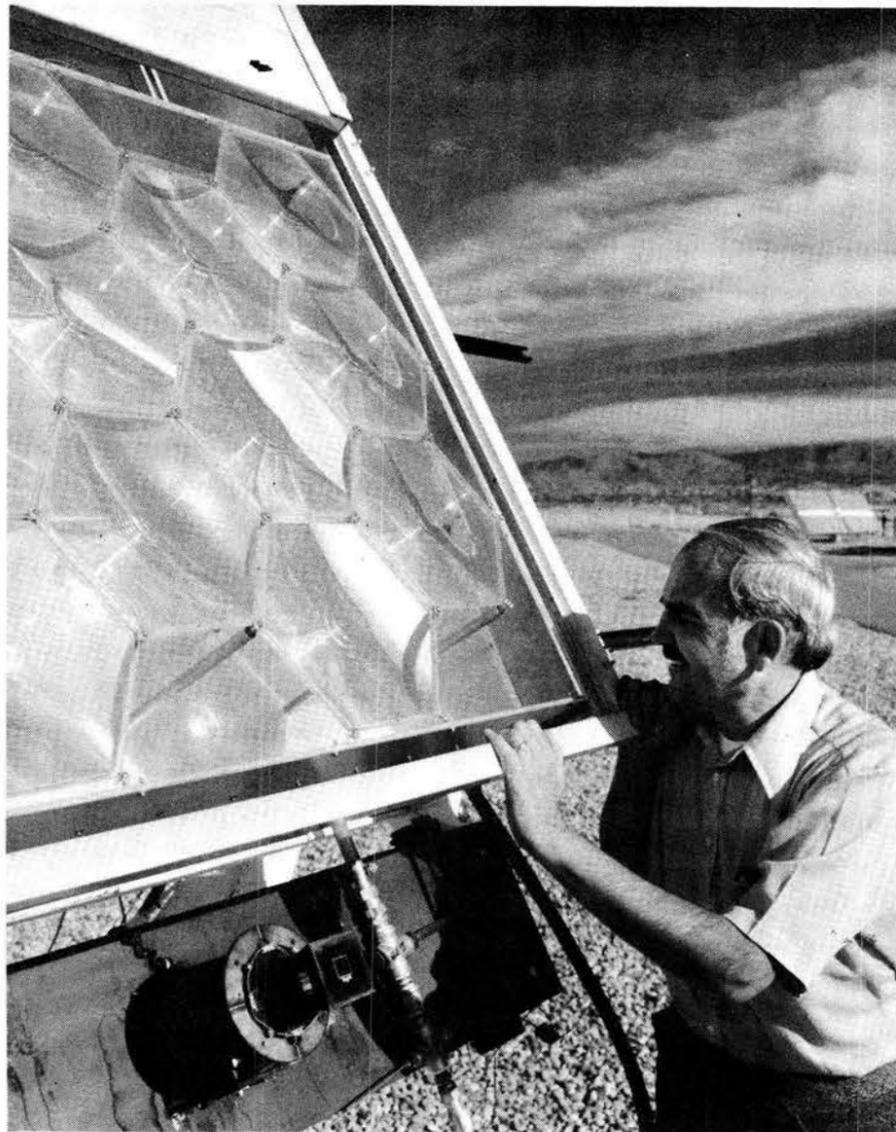
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KAFB announced this month the opening of a new parts store operating in conjunction with the Auto Shop. One of the Base recreation facilities available for use by Sandians, the new auto parts store sells at significant savings "about anything a car owner needs," according to Auto Shop instructor Joe Holguin. The store is well stocked with items for motor tuneups, front end parts, tires and tubes. Major items such as complete engines, are available through special orders.

The Auto Shop (Bldg. 20375) is located on Texas between K and M Streets. Hours of operation are Tuesdays through Fridays, 9 a.m. to 9 p.m.; Saturdays, 9 a.m. to 5 p.m.; Sundays, noon until 5. The facility is closed Mondays.

* * *

Colloquia coming up include "SNLA Scientific Computing Network Plans," speaker for which is Larry Bertholf (2645);



FRESNEL LENSES of concentrator module focus the equivalent of 400 suns upon each photovoltaic cell, considerably enhancing electrical output. Howard Gerwin (4721) adjusts test assembly.

Concentrator Ups Photovoltaic Output

A sunlight-to-electrical conversion efficiency of 16.4 percent, highest ever achieved with a solar cell module, has been attained with a 12-cell photovoltaic concentrator module developed by Varian Associates, under a contract with Sandia National Laboratories.

The photovoltaic concentrator module uses 12 plastic lenses to concentrate sunlight on the 12 cells, producing 100 watts of direct current, plus thermal energy from cooling water circulated around the cells in a special manifold. The 67-pound module is mounted on a two-axis tracking structure.

The acrylic Fresnel lenses focus the equivalent of 400 suns on each of the gallium arsenide cells. Because a cell's electrical output increases with the intensity of the sunlight focused on it, relatively inexpensive lenses reduce the number of the expensive cells needed to produce a given amount of electricity.

One of the two modules designed, fabricated and tested under a six-month, \$190,000 contract is now undergoing additional testing at Sandia. The module, a prototype not yet available commercially, is designed to be installed and interconnected with other modules on a sun-tracking structure.

Sandia directs the Systems Definition Project in DOE's photovoltaic conversion program. Lead roles include technology development of photovoltaic concentrator arrays, technical management of initial system field experiments, and design and definition of photovoltaic power systems. Ultimate program objectives are development of reliable, low-cost photovoltaic systems and creation of technical and industrial capabilities to produce and distribute the systems for widespread residential and commercial applications. At the Labs, Eldon Boes and Jack Jackson, both of Photovoltaic Projects Division 4719, are responsible for this project.

it will take place Jan. 7 at 10 a.m. in Bldg. 815. On Jan. 8 at 10 a.m., a video replay of the classified talk, "Soviet Electromagnetic Pulse Weapon Technology," will be shown in Bldg. 815 inside the Tech Area.

* * *

What do you do when that spiffy new front-wheel drive car you're driving goes into a skid? Safety's Marshall Tippy sends us this clip from the National Safety Council on the subject: "Don't decelerate when a front-wheel drive vehicle starts to skid. The correct procedure is, if there is room, accelerate and steer into the skid. If not, jam in the clutch and steer into the

skid. Put the car in neutral if it has an automatic transmission. It won't straighten the car, but at least it does not encourage the rear of the car to outrun the front of itself."

Congratulations

Mr. and Mrs. Leonard Livingston (1125), a son, Garrett James, Dec. 4.

Mr. and Mrs. Dennis Mowry (2167), a daughter, Denae Marie, Nov. 19.

Mr. and Mrs. Richard Pepping (4413), a daughter, Amanda Jean, Dec. 5.

Mr. and Mrs. Tom Bickel (4731), a daughter, Jessica Elaine, Dec. 11.

Fun & Games

Base gym—This place is getting very exclusive starting in January. It's not true, we have learned, that all clients will be strip-searched upon entrance, but you will need your Sandia ID card (not your badge, which attests only to your utter rectitude in handling the nation's secrets).

The schedule for the holiday period is complicated: Dec. 22 & 23, 8 a.m. to 9 p.m.; Dec. 24, 8 to 3; Dec. 25, closed; Dec. 26, 8 to 9; Dec. 27, 9 to 5; Dec. 28, 1 to 5; Dec. 29 & 30, 8 to 9; Dec. 31, 8 to 3; Jan. 1, closed; Jan. 2, 8 to 9; Jan. 3, 9 to 5; Jan. 4, 1 to 5. On Jan. 5, the gym resumes 24-hour per day operation.

* * *

Skiing—The NM Ski Touring Club has a bunch of good cross-country tours lined up for the holidays: Dec. 20, Redondo; Dec. 21, Sandia Crest Survey Trail; Dec. 27, Aspen Vista; Dec. 28, Sandia Crest; Jan. 1, Santa Barbara; Jan. 3, Valle San Antonio; Jan. 4, Peralta. LAB NEWS has a copy of the Club Newsletter if you want more details about any of these tours. Incidentally, the Club has a few openings on its Durango bus trip, Jan. 30 to Feb. 1. Kathie Hiebert is the contact, 4-3538, by Dec. 29.

Also in the ski touring department, the Sandia Peak Ski School has added a cross country program to the school. John Vitale, a certified Nordic instructor, heads the effort which offers lessons on a daily basis or, if you prefer, a X-C ski school extending over three Saturdays or Sundays. LAB NEWS has a few brochures relating to this program.

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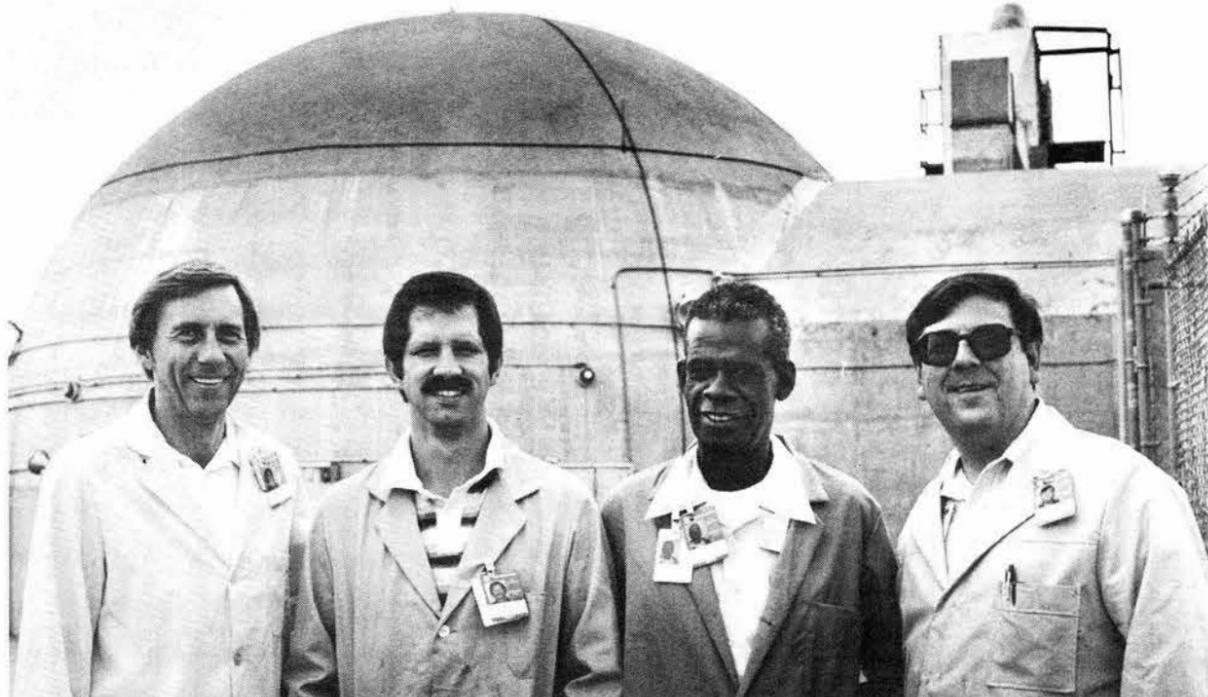
Outdoor recreation—LAB NEWS also has a few brochures issued by the state which are more in the nature of a survey being conducted in preparation for something called the Statewide Comprehensive Outdoor Recreation Plan (SCORP). Purpose is to guide the state in development of recreation sources and the protection of natural resources. If you'd like to complete one of these, they're available in our office—MO-125, next to Bldg. 814.

* * *

Running—Sandia runners turned in fast times in the recent Fiesta Bowl Marathon held in Scottsdale, Ariz. First among the Sandians was Jim Harrison (4311) with a 2:48; right on his heels was Alan Spencer (3611) who also ran a 2:48. Terry Bisbee (2613) was next, 2:51, then Al Alvarado (2653), 3:01, then Bill Hendrick (3643), 3:09. Some 4200 runners participated in the marathon.

* * *

Ice skating—A beginner's class in this is scheduled for Dec. 31, running every Wednesday for six weeks from 6:15 to 7:15 p.m. at the Iceland Bowl. Instructor is Joann Brockmeyer, and the class is open to Sandians, DOEans, contract employees and their dependents—kids, too. Cost is \$19/student. Register: 4-8486.



REACTOR OPERATORS LaVern Zipprich, Sid Domingues, Vern James and John Zubersky (all 4451) in front of Area V's "Kiva."

Something Special

Sandia's Reactor Operators

Having completed a rigorous training program, four Sandia ESAs have been certified as nuclear reactor operators. They are John Zubersky, LaVern Zipprich, Vern James, and Sid Domingues (all 4451).

Main objective of the training is to assure the reactor's safe operation through a sound understanding of reactor principles. The curriculum, developed by Berry Estes (also 4451), consists of classroom instruction; study of reports on reactor safety and reactor technical specifications; and briefings in related areas such as explosives safety. Written and oral exams as well as practical tests take place when this training is concluded. The program includes recertification exams every two years, plus the passing of a physical examination.

After additional training and experience, a reactor operator may advance to reactor or facility supervisor. Reactor supervisors, normally TSAs, are selected from the ESA operator group.

Most of Sandia's operators are graduates of the Navy's reactor program, which often includes duty aboard a nuclear-powered submarine. Some, like John Zubersky, an operator on the Annular Core Research Reactor, then earned an associate degree in electronics before coming to Sandia. Such a background is good preparation for an interesting career at Sandia. In fact, notes John, it is the variety and challenge that appeals. "We cover everything from weapon systems to reactor accident scenarios."

Sandia's three pulse reactors reproduce certain radiation environments of a nuclear weapons burst. They are thus used in simulation and diagnostic tests, especially in those involving radiation hardness. During testing, the reactor itself may be affected by the experiments so that its original characteristics change. Reactor operators, among others, determine what these changes are and compensate accordingly, exercising considerable discretion and judgment in the process. Here it is essential that correct operator actions be



JOHN ZUBERSKY (4451) runs through his checklist in the control room of Area V's Annular Core Research Reactor.

taken because, once the pulse is initiated, the operator can do nothing to reduce the pulse power. Charged with the safe operation of the reactor, the operator has authority to suspend operations.

Ted Schmidt's group, Reactor Applications Division 4451, oversees training of reactor operators. He observes, "We've always known how important the operating staff is to safe reactor operations. And the Three Mile Island accident dramatically emphasized this. Our Sandia operators must routinely meet heavy demands—multiple start-ups each day, reactors operating in several modes, a wide spectrum of experiments. We expect a lot from them and they deliver."

Speakers

Gary Reif (2522), invited paper, "In-Process Quality Control of Friction Welding Using Acoustic Emission Techniques," annual meeting of the American Welding Research Council for University Research, Nov. 13, Lehigh University.

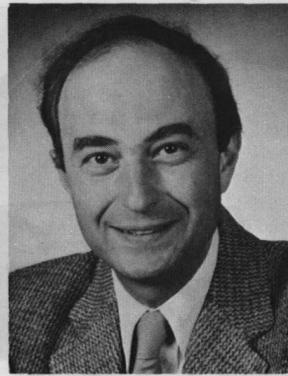
John Holmes (4713), "Solar Central Receiver Power Development," Air Force Systems Command Comptroller Conference, Dec. 10, KAFB.

Sympathy

To Catherine Devarenne (3254), on the death of her father in Albuquerque, Nov. 9.



Britt-Marie Manrow



Wil Gauster



Marlyn Diaz



Marge York



Samuel Paolucci



Roy Lee

Sandians Recall Christmas In Other Lands

Many family traditions relating to the celebration of Christmas stem from customs in other lands. We talked with Sandians, born in other countries, who recalled for us what Christmas was like there.

BRITT-MARIE MANROW (8411) came to America when she was five, but still recalls what it was like at Christmas-time in Sweden.

In Sweden, Christmas begins Dec. 13 when young girls dress in a white gown, carry a wreath and candle and serve holiday pastries to their families. She recalls the sumptuous Christmas smorgasbord, prepared for friends and relatives who drop in on Christmas Eve. It included *sillsalad* (herring salad), pickled beets and cucumbers, *Kottbuller* (meatballs), *pepparkakor* (gingersnap cookies) made in shapes of animals, angels and people, as well as a boiled pig's head—a delicacy.

"Back in Sweden I remember my dad taking me for a walk and *Julltomten* (Santa) had come to leave gifts while we were out," Britt said. Midnight services were attended after the gift exchange on Christmas Eve. Afterwards, the older children held parties to take trees down when the holiday season officially ended Jan. 13. Young people would go house to house to "undress" the trees and were given cookies and candies by the householders. Britt reports that many of these traditions have been carried on by her and her children even after some 50 years here.

WIL GAUSTER (8347), who came to the United States at the age of 10, reminisced about Christmas in Austria.

The holiday season there begins Dec. 5 with St. Nicholas Day when children leave their shoe or sock by the window, and apples, candies, nuts or small gifts are left in them during the night. Sometimes, for the smaller children, St. Nick would appear with beard, staff and mitre. He might be accompanied by Krampus, an assistant who carried a switch and a sack of coal for children who weren't good during the year.

Wil recalls that Christmas is celebrated more on Christmas Eve when gifts are brought out for children with the understanding that they came from the Christ

child. In his house a room was kept closed until that evening when a bell sounded and the door was opened to reveal a decorated tree with gifts beneath. Later that night they had a special dinner, highlighted by European carp, after fasting all day. "This was one of the few times when children were allowed to taste wine," Wil recalls. "My mother used ornate hand-blown glass animals and other figures for the tree that had been passed down from her grandmother. We still have some of them that are used on our tree each year."

MARLYN DIAZ (8152) spent ages seven to 12 in the La Union province of the Philippines. The holiday observance there begins Dec. 16 and runs through Epiphany, Jan. 6. She reports that young people there first go caroling in school groups house to house, singing carols and popular songs like "Jingle Bells." Residents gave money to the carolers and their teachers pooled the money to buy presents for the participants. Marlyn also recalls being an angel in her church's "living Nativity" program. Some Philippine cities hold Christmas dances in the town square which is decorated with multi-colored lights.

Another custom, says Marlyn, is the hanging of handmade stars on the outside walls of houses. Made of colorful tissue paper, the stars are illuminated by kerosene lanterns. Marlyn's brother-in-law still makes stars to hang at his home in the Bay Area.

MARGE YORK (8212) spent the first five years of her childhood in Chile where her father was an official with the American Copper Company. Her mother is Argentinian. She recalls the family's tradition of decorating a live evergreen tree with clear glass ornaments, bird figurines, miniature musical instruments and candles in special holders. The excitement was in lighting the candles on Christmas Eve, Marge remembers.

Now in this country, her mother still makes some of the traditional dishes native to Chile—such as *pan de Pascua*, a fruitcake or Christmas bread. A holiday drink Marge still likes is *cola de mono* (monkey's tail), similar to light egg nog and made with a vodka-like grape liquor.

LIVERMORE NEWS

DECEMBER 19, 1980
VOL. 32, NO. 25

SAMUEL PAOLUCCI (8124) fondly remembers Christmas in a small Italian town on the Adriatic Sea where he lived the first 15 years of his life. The annual observance began on Holy Friday with many religious activities, including processions around town in holiday costumes. He also recalls the mountain people being hired to come down to his village and serenade families early in the morning with bagpipes and clarinets. They would do this every day for a month, dressed in their shepherd garb.

Christmas activities were centered around the church, but people did exchange gifts at Epiphany. Samuel recalls some of his favorite holiday foods—two varieties of cookies (*calcione*) filled with marmalade and chopped nuts, and *crispelle*, a fried dough with raisins. Samuel and his wife plan to visit his family, now living in the East, for this Christmas.

ROY LEE (8334) lived in Hong Kong until age 18 when he immigrated to the United States. His family was active in the Methodist Church there and attended Christmas Eve services, much as people do here. They used to walk up into the hills about 20 minutes away and cut a pine tree to bring home and decorate. Roy said they received more presents during the Chinese New Year, however, which included "lucky money" (coins) wrapped in red envelopes, plus enough firecrackers to last a week.

On Christmas they had a Chinese feast of several courses, and Santa appeared in the traditional red suit and beard at church parties, he recalls. Now that he is a citizen of this country, all of their observances are "pretty much Americanized."

Sympathy

To Jerry Henderson (8112) on the death of his father-in-law in San Francisco, Nov. 16.

To Tom Prast (8353) on the death of his mother in San Diego, Nov. 28.



Retiring



Gene Aas (8266)



Florence (8273) and John (8444) Lenz

Credit Union Reporter

Interest Refund Announced

Times were rough this past year. However, despite the hardships suffered by many financial institutions, 1980 was a good year for Sandia Laboratory Federal Credit Union. The Board of Directors appreciates your continuing faith in your Credit Union and throughout the year has been paying depositors the highest dividends allowed by law. Now, borrowers will also benefit. Although the high cost of money forced us to increase interest rates on loans this year, we are announcing a five percent refund on total interest paid by borrowers during 1980. This refund, which will apply to all shareholders of record whose loans were either paid up during the year or are current as of Dec. 31, will be posted to your share accounts on that date.

We are also happy to announce that, starting in early January, the walk-up window at the Albuquerque office will be open from 7:30 a.m. to 5 p.m. every work day. Following are the hours for the holidays:

- Dec. 25 through 28, and Jan. 1: closed
- Dec. 29 through 31: teller service only, 8 a.m.-12 noon
- Jan. 2, 1981: open for full service, 7:30 a.m.-3 p.m.

Members of the board and staff of the Credit Union wish you all a Merry Christmas and as prosperous a New Year as the old. Celebrate the holidays safely and sanely so that we can confidently say, "See you next year!"

feed liback

Q. What does the Labs do with the drain oil from the Motor Pool cars and trucks? Why not have an oil drop for employees who change their own oil?

A. For years Sandia has disposed of its waste oil to Mesa Oil Company which, in turn, refines it and sells it to the public.

In reply to your suggestion that Sandia establish a point where Sandia employees can dispose of their oil, it has been considered and will be established in the vicinity of the salvage yard. When it has been set up, it will be announced in the LAB NEWS or the Weekly Bulletin.

D. S. Tarbox—3400

Q. For several years, Sandia has distributed December paychecks on the first business day of January. This year, however, Sandia has declared Jan. 2 to be Energy Conservation Day and Sandia employees do not resume work until Jan. 5. Does the Labs plan on distributing paychecks this year prior to Jan. 5, 1981? As both a new car and home owner, my monthly payments are due by the 2nd, not the 5th. Is it possible for me to receive my paycheck prior to the 5th?

I would prefer receiving my December paycheck in December. This would make December's pay subject to 1980 Social Security taxes and not 1981 taxes. Both the maximum amount of money subject to Social Security withdrawals and the percentage of income withdrawn will be increased in 1981. Hence, delaying payment until January of monies earned in December increases the employee's "tax burden." For some employees the increased burden may be over \$100. I therefore find it highly desirable to receive my pay in December. Is this possible?

A. Monthly payroll for Dec. 1980 will be distributed as follows:

Jan. 2, 1981—to employees who have authorized an automatic bank deposit on Form SF 7960-AA, Disposition of Employee's Salary Check.

Jan. 5, 1981—to employees who receive their paychecks at work. (Note—Arrangements have since been made to make checks available to those who receive them at work at the Credit Union on Jan. 2. This procedure was outlined in the Weekly Bulletin, Dec. 4).

The maximum midmonth withdrawal is 50 percent of monthly base pay, less federal and state withholding taxes and FICA. Your December midmonth withdrawal is included in your 1980 W-2. If you wish to make a withdrawal, "Authorization of Monthly Salary Withdrawal," Form SF 7960-AB, must reach Payroll no later than the fifth day of the effective month.

Both Forms SF 7960-AA and SF 7960-AB are available at the counter at Payroll (Building 802, Room 160).

It is not our intention to change the December payday because, if we did, most people would have 13 months of pay subject to 1980 tax, which could also result in a higher tax burden.

C. R. Barncord—3200

Cover Artist

The cover of this Christmas issue of LAB NEWS is the work of Yale Knox, an artist in Tech Art Division 3155.

Christmas Customs Similar, Different

Seong-tan-ul Chook-ha hamnida — Christmas in Korea is not a long-standing tradition. "It really dates only from the end of World War II," Sungkwun (or "Ken," as he's better known at Sandia) Lyo (5151) was telling us. "It's celebrated by both Christians and non-Christians. Elementary and high schools, for instance, put on Christmas programs at this time of year—concerts, carol singing, plays—and everybody joins in.

"Many people observe Christmas by going to church. But Christmas eve is for partying, too. It's the only night of the year when the midnight curfew is lifted and parties tend to go far into the night.

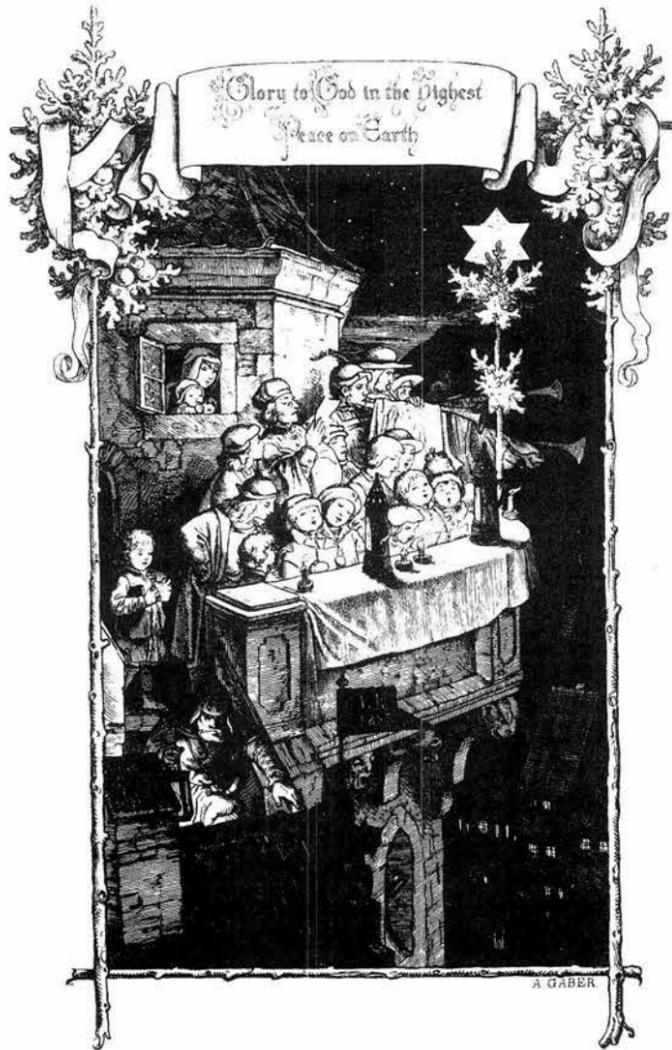
"Some parents give presents to their children, but gift-giving is not widespread. The gifts are placed near the child's pillow. Since we sleep on the floor, there's plenty of space. Another nice custom I remember is the church choirs touring neighborhoods singing Christmas carols. By the way, the carols are the traditional ones translated into Korean—'Silent Night,' 'Joy to the World,' and so forth. Contemporary songs like 'White Christmas' aren't sung by the choirs."

Generally, most Korean Christians—Catholic and Protestant—live in the cities, while the majority of rural people remain Buddhist and do not participate in Christmas celebrations. Ken points out that Christianity gained acceptance by many Koreans because of the support that foreign missionaries, often at the risk of their own lives, gave to Korean nationalists during the Japanese occupation from 1910 to 1945.

"The biggest holiday is New Year's," Ken told us. "It's also relatively new because the traditional Korean new year is based on the lunar calendar and occurs in February. It's now the year 4313—we date it from the reign of King Tan-goon who founded the first Korean state. He's a historical personage but a lot of legends and myths have grown up around him. Anyway, Koreans get to celebrate two New Years' because we also ring in the solar calendar new year on December 31.

"On New Year's Day, everybody, especially the women and children, dresses up in traditional costumes and visits their elders—children visit their grandparents, uncles, and aunts. There's a special ceremonial bow they have to make called a *sae-beh*—afterward they'll get a gift of money, fruit, or candy. But adults also make calls on their elders—an especially respected teacher, perhaps, or an important political figure. Korea is long on tradition and showing respect to one's elders is considered extremely important.

"Gift-giving, usually food or candy, is also more common on New Year's Day. Another reason for this day's popularity is that Koreans automatically add one year to their age. For instance, if a baby is born on December 30, he's already considered to be one year old. Then on January 1 another year is added, so before the baby's barely a week old, he's a two-year old. New Year's is really a big birthday party for the whole country.



"As to holiday foods," Ken continued, "the traditional New Year's meal is *duk-kook*, or rice cake soup. It's usually served with *man-doo*—fried, meat-filled dumplings. A lot of other dishes are also set out along with the staple rice and *kim-chee*, hot spicy cabbage. Two popular soft drinks are *soo-chung-kwa*, made from dried persimmons and other fruits, and *sik-hae*, a sweet drink made from rice. We also have beverages with a little more kick to them—*jong-jong*, *so-joo*, and *makolee*, all made from fermented rice.

"The Korean families in Albuquerque combine the two traditions," Ken said. "We decorate Christmas trees and have rice cake soup on New Year's."

Feliz Navidad—Cerro de Pasco, Peru, is a long way from Albuquerque but Ricardo Beraun (5513) nostalgically recalls Christmases there. "The kids were given hot chocolate and cookies early on Christmas eve and sent off to bed," Ricardo told us. "Then the grownups would party most of the night. The next morning, they'd sleep off the previous night's festivities while the kids played with their presents.

"In Cerro de Pasco and throughout Peru, there were parties every night between Christmas and New Year's. The traditional Christmas decoration is the *nacimiento*, or nativity scene—one excuse for a party is to go to your friends' houses to take one of their figurines and replace it the following year with a larger one. So there's a lot of visiting back and forth to pick up old figurines and bring new ones. Special masses are scheduled for blessing all these new figurines—these are in addition to the traditional midnight mass or *misa de gallo*.

"Christmas afternoon was taken up with parties at the park or beach for the kids. Peru is in the southern hemisphere so the seasons are reversed—'summer' vacation is from mid-December to the end of March."

Turkey (*pavo*) is also the traditional Christmas meal—it's basted with wine but doesn't have stuffing. The turkeys are not bought frozen and wrapped as they are here—families buy a live turkey and fatten it up for a couple of months. "When the time came to make it into a Christmas dinner," said Ricardo, "we'd give the bird a few sips of wine. Turkeys like wine and they get drunk right away—then it's easier to slaughter them.

"Turkey's served with *papa a la Huancaína*—small yellow potatoes cooked in a very hot yellow chile sauce with onion slices, olives, egg slices and cherry tomatoes. In Peru, chile is called *aji* and this sauce's name is *aji amarillo*.

Along the coast, *ceviche* is a popular festive dish. It's made with raw shrimp, codfish, or squid and octopus marinated in lemon and other kinds of *aji*. Then there's *anticuchos*, an appetizer similar to shish-ka-bob but made of beef hearts. A typical holiday drink is *chicha morada*—it's made from a type of corn called *choclo* and served cold with slices of pineapple and apple. For the grownups, there's *pisco*, which is usually made of sugarcane, similar to rum. It's close to 100 proof so if you drink it straight it tastes like a cat going down your throat backwards. So pisco is usually mixed—for instance in pisco sour which includes eggs and lemon juice blended together."

Ricardo told us that a few South American families in Albuquerque get together to celebrate Christmas as they did at home. "But you can't get pisco or choclo here, so it's not quite like being in Peru," he said.

* * *

Merry Christmas—Jack Jackson's (4719) lively interest in foreign languages and cultures is a natural outgrowth of his youth. Born on an American air base in the Philippines, Jack grew up visiting and living in various countries. Recently, he recalled Christmases spent in England in 1956-58. "My father was in the Air Force and we lived near the base in a town called Dunmow, not far from London," Jack told us. "The house we rented was over 200 years old and had a thatched roof.

"The English don't exchange gifts on December 25—instead, they do it on Boxing Day, December 26. I think gift-giving arose from the aristocracy's practice of giving gifts to their servants, but now it's widespread. The English don't have Christmas trees, and many of our English friends thought it rather odd when we did. They decorate their windows and doors with holly and mistletoe.

"Caroling is another popular Yule custom," Jack continued. "On Christmas eve, groups of singers go to neighborhood houses. After caroling, they generally receive small gifts of candy or money. And many of our carols are of English origin—

[Continued on next page]

Commuter Notes

Albuquerque employees who would like to form or join carpools will find it easier after the first of the year, according to the commuter assistance people in Benefits & Employee Services Division 3543. During the second week of January, Sandia and DOE will join with Kirtland Air Force Base in a computerized carpool matching service. Details will be announced in the next LAB NEWS.

For '81: Quit Smoking

Arlene Price from Medical has a modest proposal for those of you who are quietly puffing away as you read this. Quit in '81. Arlene runs the successful Quit Smoking classes and the next one starts Jan. 6. It runs Tuesday and Thursday afternoons, Jan. 26 through Jan. 29, from 3:30 to 5 p.m. in the conference room in Personnel. Sign up by giving Arlene a call on 6-0021. Remember: smoking is such a drag.

Continued from Page Eight

Christmas Customs

'Deck the Halls,' 'God Rest Ye Merry Gentlemen,' and many others.

"As for holiday fare, I don't recall that it was especially memorable since the English have a penchant for boiling everything and serving warm ale and stout. A traditional Christmas dish is goose—roasted, not boiled. They also like Yorkshire pudding, which is a blood pudding. Another Christmas pudding is baked with six-pence coins inside. They're for good luck, although the person who bites into one might not think so. That's probably why they bake it in brandy and then pour more over it—as an anesthetic."

Jack also told us of some Philippine Christmas customs he heard about from his mother. She was born in Manila within the small Spanish community that remained from the days when the archipelago was among Spain's last colonies, along with Cuba and Puerto Rico. Children traditionally received presents on Epiphany, Jan. 6, from the Three Wise Men who left gifts in the children's shoes. Although I understand that if the kids had been bad, all they'd get was a lump of coal," said Jack. However, by the 1930s and '40s Manila was quite cosmopolitan and the American (albeit originally German) customs of Santa Claus and Christmas trees were catching on.

"A mass was celebrated in my great-great aunt's house on Christmas eve—or *nochebuena*," Jack told us. "Afterward there'd be a *cena*, or late supper, of turkey and ham. Later, the children would receive their gifts. On New Year's eve, at midnight, they observed the Spanish custom of eating 12 grapes, one for each stroke of the clock."

Do It Yourself?

Old Stove, Parts, Bring Cheap Heat

The way Carl Smith (2452) figures, he's more than ready for a rough winter — if it comes. By using an heirloom stove and assorted spare parts found around the house and at junkyards, he's built an efficient supplemental heating system.

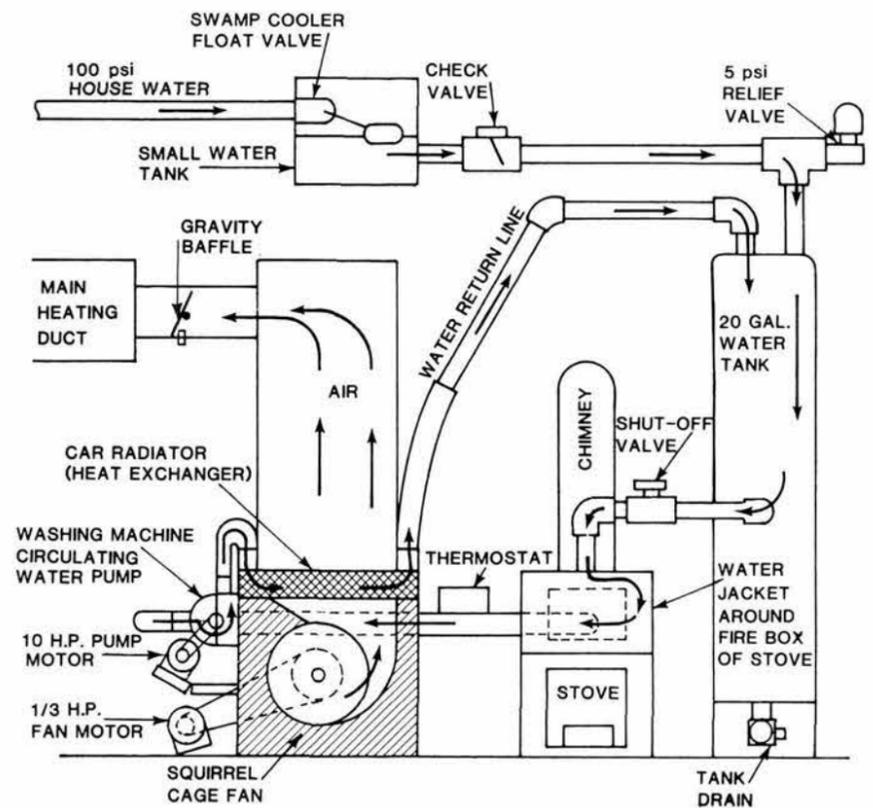
Says Carl: "I used a 100-year-old jackstove that my father owned — it was built in Wilkes-Barre, Pennsylvania. Then I took an old 20-gallon water tank, two car radiators, a water pump from a washing machine, and a one-tenth horsepower electric motor. Water circulates from the water tank to the stove where it's heated. Then the water pump sends the hot water through the radiators — which act as heat exchangers — where the water heats air just like a car heater. A return line carries the water back to the tank. When the water reaches 150 degrees, a thermostat starts the squirrel cage fan which blows hot air into the main heating duct — the fan also opens gravity baffles in the two six-inch tubes connecting to the main heating duct. The entire setup fits into a four- by eight-foot area — the wall behind the stove and water tank is covered with aluminum foil to reflect heat back into the room."

Carl runs the stove only on weekends and never at night. Such a system could, however, be run continuously with a larger firebox so that the fire wouldn't go out. He hasn't calculated the stove's effect on heating bills, although he estimates that it would reduce them by \$10 a month if run full time.

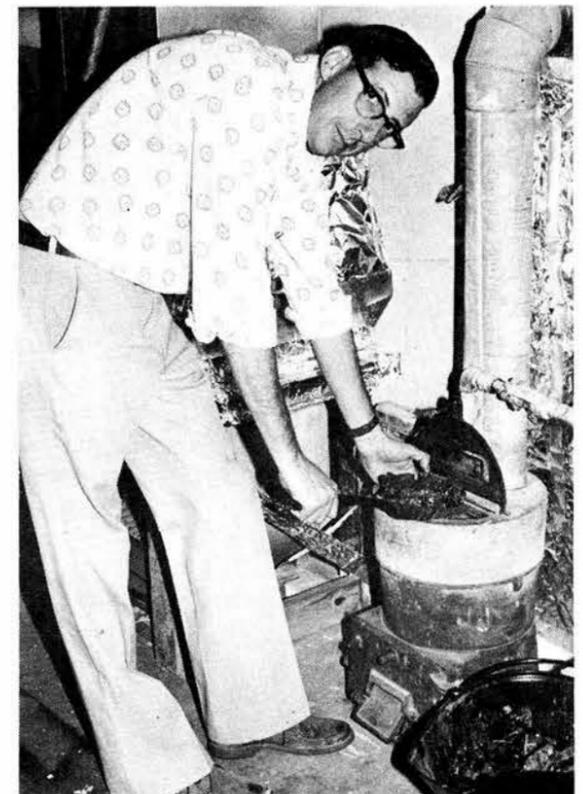
The heating system is laden with safety features: there's a safety valve above the water tank, 15-pound caps on the radiators, a shut-off valve in case the system springs a leak, and a check valve to keep pressure anywhere in the system from backing up into the fill tank.

"My motivation in building this was to have a backup system in case of a natural gas shortage," says Carl. "If there's a bad winter, New Mexico natural gas could be diverted to other parts of the country, leaving us with reduced supplies. My stove burns coal which is cheap but not easily available in Albuquerque—I rent a trailer and run over to Madrid or Grants where a ton costs \$6 to \$7. And, of course, if you're bringing a load of coal home, you need a shed to store it in."

Carl is also modifying his fireplace to make it more heat-efficient and has just finished building an attached greenhouse on his 2250-square-foot house. So he's well prepared for Old Man Winter and whatever frigid tricks he has up his sleeve.



SCHMATIC OF Carl Smith's coal-fired heating system.



CARL SMITH feeds coal to his jackstove.

Save Energy During Closing

A reminder to all employees: the Labs will be shut down for the 11-day Christmas holiday from after work Dec. 24 to 7 a.m. on Jan. 5. Remember to disconnect all possible energy-consuming devices (electric typewriters, electric foot-warmers, radios, etc.) and take office plants home so lights don't have to be left on for them. Each supervisor is responsible for making sure that all electric equipment in his/her area is shut off. Also, in buildings and trailers where the heating is controlled by the occupants, the supervisor is responsible for setting back the thermostat. If you have any questions, call Plant Maintenance, 4-6875 for Areas I, II, and IV; for facilities in Areas III and V, and remote areas, call 4-7672.

MILEPOSTS
LAB NEWS
DECEMBER 1980



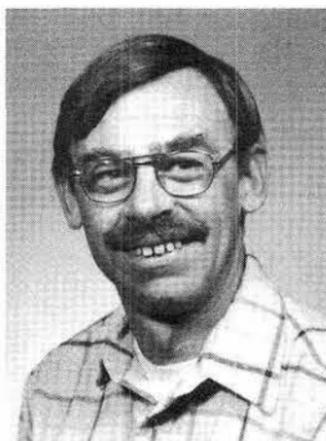
Fred Schkade - 5531 10



Bob Stromberg - 4714 30



Nell Norton - 3155 20



Floyd Mathews - 1533 20



Phil Arnold - 1715 25



Jim Sweet - 5824 10



Jeffrey Philbin - 4452 10



Alvin Farmer - 2332 25



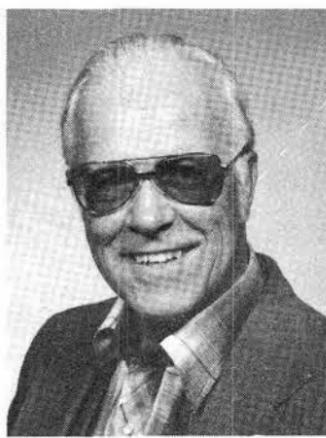
Wayne Miller - 5634 30



Richard West - 2167 30



John Barnes - 1553 30



Robert Adams - 1734 25



Benny Garcia - 3321 30



Susana Derado - 3425 30



Frank Dean - 1761 15



George Vaughn - 2455 30



Phil Walkington - 1552 15

My Favorite Old Photo



It was 1912. Dad was 14 and he and his father, Charles Clark, were on an outing near Salem, West Virginia. That's Grandad in the locomotive on the narrow gauge track of the Lorna Railroad, which operated in Ritchie County. Dad (Paul Clark) stands below. Grandad wasn't a railroad engineer — he was president of Salem College. Dad may be familiar to some Sandians — after retiring from the chemistry department of Iowa Wesleyan, he came to Sandia Labs in the '60s and worked in the Tech Library as a chemistry consultant. He died in 1978. The Labs has been a family place for us—Bob works in Org. 2525. (Charles Clark, 1223)

JUNK • GOODIES • TRASH • ANTIQUES • KLUNKERS • CREAM PUFFS • HOUSES • HOVELS • LOST • FOUND • WANTED • & THINGS

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday. Mail to: Div. 3162 (M0125).

RULES

1. Limit 20 words.
2. One ad per issue per category.
3. Submit in writing. No phone-ins.
4. Use home telephone numbers.
5. For active and retired Sandians and DOE employees.
6. No commercial ads, please.
7. No more than two insertions of same ad.
8. Include name & organization.
9. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

MISCELLANEOUS

SEWING MACHINE, portable, Singer model 328, zigzag & 7 other stitches, \$50. Sims, 293-6153.
 REALISTIC model TRC-431, 4 watt, 40-chan., base/mobile transceiver CB, \$85; Realistic model TRC-458, 4 watt, 40-chan., AM/SSB trans. CB, \$175. Dahl, 256-1067.
 NEW HITACHI D22S tape deck w/Dolby, warranty card included. Yates, 836-3921 after 5.
 CHROME dinette w/4 chairs, \$65; maple bed w/box springs & mattress, \$110; Danish chair, \$35; Zickos 5-pc. drum set. Gray, 265-1883.
 STEREO amplifier, tube type, \$15. Ray, 296-2930 after 5.
 GOLF CLUBS, Wilson Crest, 4 irons, 2 woods, putter & bag, \$40. Tooley, 294-6219.
 WOOD BURNING STOVE, princess style Shrader brand, free standing, 1 yr. old, \$475. Wilson, 299-3046.
 LUMINARIAS: at 9500 Constitution NE on Dec. 20 & 22, \$1.50/doz., no deliveries; all proceeds will benefit Scout Troop 165.
 DARK GREEN (avocado) draw drapes, 120"x83 1/2" & 92"x83 1/2" includes cornices, hardware, sheers, \$100; free: used acoustic ceiling tiles. Greene, 293-6419.
 ARTIFICIAL Christmas tree, 6 1/2' Scotch pine, \$15. Shepherd, 299-9066.
 MEN'S Dynafit ski boots, size 12 1/2, \$75. Wright, 296-3850.
 CHROME wire wheel covers for 15" wheels, set of 4, \$50. Ewing, 268-6920.
 RADIO SHACK COMPUTER, TRS-80 16K level II, new, \$750. McDaniel, 299-6189.
 GRILLE assembly & front bumper for '69 or '70 Chevy pickup, \$75; wanted: 3'x6' casement window. Aragon, 294-0225.
 HERTER'S model 72 shotgun reloader, both 12 & 20 gauge dies, thousands of overpowder & filler wads. Komen, 299-8881.

TIRE CHAINS, 5.60-15, fits VW; 175-14 fits Volvo, \$5 ea. Stirbis, 293-8785.
 DESK, wood construction, 4 drawers, including file drawer, attached shelves, \$75. Novotny, 296-7167.
 GRINDER/SHREDDER, Sears Serial 43.02935, model 143, \$125. Dancy, 299-8223.
 NIKON FM 50mm f/1.4 MD-11 motor, \$490. Passman, 821-4999.
 ELECTRIC bass guitar & amp, dual pick-up, 17 watt amplifier, cost \$185, sell for \$130. Carroll, 296-0256.
 CRAFTSMAN oxy-acetylene outfit, 2-stage regulators, cutting attachment, welding tips, 50' hose, \$110. Burns, 268-5607 after 5.
 COCKER CROSS PUPPIES, 5 wks. old at Christmas. Sharp, 842-0218.
 REFRIGERATOR, \$70; expandable plank scaffolding, \$25. Falacy, 293-2517.
 OLIN MKI skis, 195cm w/Solomon 505 bindings, \$50. Letz, 299-3247 after 5:30.
 COMPLETE chemical laboratory: 2 cabinets of prof. glassware, Bunsen burners, stands, chemicals; value over \$400, sell for \$150. Clark, 298-4913.
 .44 MAGNUM 14" barrel (only) w/target sights for Contender, new, \$85; Leupold 1" (low) scope rings, \$14. Brammer, 266-5158.
 CHRISTMAS TREE, 4' artificial, \$8; new cot, \$30; twin bed, \$75; lawnmower, power, reel, \$20. Moss, 296-4109.
 FOUR 15x8 chrome rims w/70 series steel belted radials, 5 1/2", 5-bolt, \$200. Reif, 299-2665.
 COMPUTER, Radio Shack TRS 80, Model I level I 4K, used less than 4 hrs. Wray, 344-5363.
 TIRE CHAINS for 9.50x16.5 or 10.00x16.5; motorcycle/bike rack, bumper mount, up to 200 cc bike; Obrien water ski, 64" w/zipper case & ski vest. Fisher, 881-8072.
 AHS vinyl sleeve athletic letter jacket, \$30, size 40. Gonzales, 265-9031, 293-3443.
 GOLF CLUBS, irons, 3-PW, Wilson X-31, \$75 firm. Strassel, 298-3816 after 6.
 BICYCLE, boys' 20" motocross type w/puncture proof tubes, nobbys, \$50; 30" gas stove w/dbl. oven, \$50; 4'x8' sheet Formica (blk. slate), \$10. Cole, 293-6122.
 WESTINGHOUSE elec. drop-in range, copper-tone, \$25. Hickox, 299-0772.
 JVC stereo cassette deck, model KD-25 w/multi-point peak level indicators, \$165; refrigerator, \$15; washer, \$20. Karkiewicz, 296-3101.
 LARGE weaving loom, can weave fabric 40" wide. Hobbs, 268-6461.
 TRAMPOLINE, 5'x10' Tramp-Alana quality features, welded frame, \$400 retail, new, boxed, reasonable bids accepted, benefit Cougar Soccer team. Bickelman, 299-9453.
 DINING ROOM SET: lt. wood, 5 newly upholstered chairs, table w/leaf, server & hutch, \$200. MacInnis, 898-1628.
 SKI RACK, trunk mounted, 4-pr., lock, \$30. Claassen, 255-4347.

TWO fluorescent light fixtures: 36", 30W under cabinet type, & 16x48", 80/160W modern ceiling fixture w/lenses, bulbs. Boes, 268-4481.
 COFFEE TABLE, kidney shaped glass top on wood base, \$25. Waite, 867-5953.
 REAR AXLE SHAFTS for 1971 Blazer, \$80. Patterson, 299-1062.
 REG. QUARTER HORSE gelding, 12-yr.-old sorrel race horse, Bar & Leo breeding, gentle but loves to run, \$700. Salas, 883-6638.
 PIANO, upright, needs tuning, \$500; pool table, 80"x43", accessories, \$75. Esterly, 881-1973.
 FISHER TX-500 AM-FM 65W/CH receiver; Bowman AM-FM cassette car stereo w/Pioneer 12W/CH booster; dual turntable. Pruett, 293-6244.
 PUNCH BALL GAME, just like the one seen in the movie "Urban Cowboy." Bland, 265-6286 or 884-7968.
 USED CARPETING, mustard yellow, long-shag, enough for 2 or 3 rooms, \$100. McMillan, 256-3991.
 CHILD'S Easy-Bake oven, in orig. carton, \$8; miter box w/saw, \$20. McBride, 299-4347.

DEADLINE
 for Jan. 9
 issue of
 LAB NEWS
 is noon,
 Wednesday
 Dec. 24

SCUBA GEAR: tanks, backpacks, regulators, BC, fins, etc., everything but wet suit. Barnette, 821-4810.
 AQUARIUMS: 30wx13dx16h & 36wx10dx16h w/lights, rocks, pumps, filter, artificial plants, heaters, fish; Women's 7 1/2 N Nordica ski boots. Cover, 881-3860.
 NAVAJO RUGS: three 24x30 to 40x60 inches, various colors. Rohwein, 298-8391.
 TRAIN, Lionel "027" on 4x8 sheet of plywood, engine & 6 cars. Bush, 281-3773.
 MATTRESS, box springs, headboard and frame, twin size. Schwarz, 884-9027.
 HITACHI, reel-to-reel recorder, \$75. Mueller, 296-2973.
 DINETTE table w/6 swivel chairs, modern yellow & white pedestal design, \$99. Nuttall, 293-2250.
 BRUNSWICK air hockey table, includes paddles & puck, \$175. Hedberg, 299-8850 after 5:30.

TRANSPORTATION

27' FOUR STAR motorhome on 77 Ford Chateau, 13,000 miles, fully self-contained, \$14,995, negotiable. Marquez, 897-3083.
 73 DATSUN 610 stn. wgn., 4-dr., 4-spd., radials, 68,000 miles, \$1650; 76 Fiat 131, 4-dr., 5-spd., AM/FM, 43,000 miles, \$2400. Lackey, 898-6638.
 78 BMW 320i, 4-spd., AC, AM-FM cassette, 22,000 miles, reg. gas, topaz. Boberschmidt, 266-4579.
 78 GRAND PRIX, low mileage, leather seats, AC, AT, PS, PB, below book, \$5200. Ellis, 869-3582.
 '80 JEEP Renegade, 358 6-cyl., CJ-7, 4-yr.-50,000-mile warranty. Strait, 268-2151.
 76 CORDOBA, 47,000 miles, one owner, AC, sunroof, cruise control, AM-FM stereo tape, new brakes, \$2600. Boyd, 821-8769.
 '80 PONTIAC Sunbird, 2-dr. coupe, custom trim, PS, PB, AC, factory warranty, under 1700 miles. Sheldon, 293-0467.
 '63 WILLY'S JEEP w/woodcutting attachment, 4-cyl., long stroke engine, \$1800. Bookwalter, 832-6122.
 CUSTOM 20" dirt bicycle, rear tuff, chrome handlebars, full pads, hand & coaster brakes, \$50. Cook, 296-3064.
 74 NOVA hatchback, AT, PS, 350 cu. in., dual exhaust, AM-FM-8 track. Mora, 877-9150 3:30-5:30 p.m.
 79 YAMAHA motocross bike, YZ 250OF, pro ported, new tires. Navratil, 292-3897, 293-5527.
 JEEP CJ-5, 258/6 4-spd., 15/22 mpg, H-D cooling & susp., AM-FM stereo, 11-15 radials, Levis top plus many extras. Bedeaux, 344-9958.
 74 CORVETTE T-top, AC, black interior, T/A radials, luggage rack. Perryman, 294-6113.
 75 HONDA motorcycle, CB-200, 8500 miles, electric & kick start, rack, \$550. Coalson, 298-0061.
 '64 CHEVY BelAir, 4-dr. sedan, AM, new tires. Calloway, 292-2429 after 5.
 73 DATSUN 240Z, whole lot of extras, \$4000. Anderson, 265-0403.
 70 MUSTANG Mach 1, 351C, \$2850; '73 Yamaha DT-3, \$400. Smit, 298-3851.
 ROGER DECOSTER motocross bicycle, heavy duty tires & rims, \$75. Fisher, 298-0526.
 74 VW Dasher wagon, 4-spd., reg. gas, 25-30 mpg. Schroeder, 344-1011.
 79 MONZA 2x2 hatchback, yellow, PS, PB, AC, V6 engine, 4-spd. trans., mini-computer, \$4200. Hobbs, 268-6461.
 '69 FORD pickup, LWB, 290 V8 new, 3-spd., w/18" self-contained trailer. Hill, 842-9162.
 MEN'S 10-speed: Raleigh Record, 27" wheels, less than 100 miles, needs seat. Boes, 268-4481.
 79 FORD pickup, F350 crew cab, 460 engine, PB, PS, AT, AC. Waite, 867-5953.
 SCHWINN Motocross bicycle, \$80. Eckhart, 256-7665.

76 CHEVY touring van, 3/4 ton, bay windows, captain chairs, couch, CB, sun roof. French, 821-6144.

REAL ESTATE

'77 MOBILE HOME, 14'x60' Artcraft/Wick Pacer, 2 bdrs., 1 bath, \$11,600 w/\$6200 down. Bookwalter, 832-6122.
 '61 10x48' mobile home, furnished, skirting, AC, washer, \$6000 or best offer. Valdez, 821-1503.
 ASSUMABLE 8 1/2% loan, 3 bd., 1 bath, NE location. Akins, 867-2492.

FOR RENT

3-BDR., 1 bath house, new carpet-paint-draperies, range & refrig., \$350/mo. + DD. Grace, 1520 Glorieta NE, 292-5368.

WANTED

CAMERAS: Voigtlander Bessa II, Zeiss-Ikon Super Ikonta, stereo cameras. Mattox, 821-3945.
 FILE CABINET, 2 or 4 drawers, good condition. Ray, 296-2930 after 5.
 ENCYCLOPEDIA SET: World Book or Britannica Jr. Sherman, 292-3297.
 BATTERY TYPE flash unit to fit "Flip-Flash" camera. Baxter, 344-7601.
 SAILBOAT, 14 ft. or 12 ft. Hueter, 242-1620.
 SKI BOOTS, ladies size 8-8 1/2. Furans, 822-0146.
 CAMPER SHELL to fit short bed Datsun or other; 10' to 14' aluminum boat, no motor. Anderson, 265-0403.
 HOUSEMATE wanted: share plenty living space, private house, Menaul-Eubank, \$100/mo. plus share utilities. Univ. age preferred. Cosden, 296-1220.
 SET OF CHINA which is open stock. McFadden, 892-6167.
 RETIRED machinist to work part or occasional full time on bench lathe & milling machine. Ideas for machine design desired. Tools no requirement. Sensel, 821-4563.
 WORLD BOOK encyclopedia set, less than 15 yrs. old. McBride, 299-4347.

WORK WANTED

YOUNG MAN willing to house sit, references provided. Dancy, 296-2341.
 COLLEGE STUDENT wants interior or exterior painting jobs over holidays. Patterson, 299-1062.

SHARE-A-RIDE

RIDE WANTED: vicinity of San Francisco & Louisiana to Area I. Meloche, 821-1358.
 CAR POOL, Rio Rancho to Sandia, seeks third member w/car. Lee, 892-5137 after 6.

Coronado Club Activities

**Chile, Posole
Happy Hour
Set. Dec. 24**

TONIGHT'S HAPPY HOUR happens in the main lounge starting right after work. There is no buffet or band.

NEXT WEEK ON Wednesday, Dec. 24, as the Labs shuts down for the holiday break, Happy Hour starts after work and features great batches of green chile and posole, masterpieces by Chef Hank Perez.

THE CLUB will be closed Dec. 25 until Dec. 31 when it opens for the annual New Year's Eve party. There'll be dancing upstairs and downstairs and partying all around. Tickets are already sold out for this one.

CORONADO GRAND SQUARES offer a refresher square dance course starting Monday, Jan. 12, at 7 p.m. Designed for dancers with some previous experience, the class will meet Mondays for 15 weeks. Instructor is John Lewin. Cost is \$30 per couple. Call the Club office, 265-6791, to enroll.

VARIETY NIGHT on Saturday, Jan. 10, features magician Don Marchi and his incredible prestidigitation, a Walt Disney movie, *That Darn Cat*, and a selection of super sandwiches starting at 6 p.m. Bring the kids and relax. Admission is free.

THE WOLFPACK journeys to El Paso Feb. 6-8 for the Lobo/UTEP Miners game. It's a round trip by charter bus leaving at noon on Friday and returning Sunday evening. Lodging is at the Holiday Inn-Downtown. Cost, including game tickets, is \$89 (dbl. occ.) and \$117 (singles). Call John Dean (296-3264) to



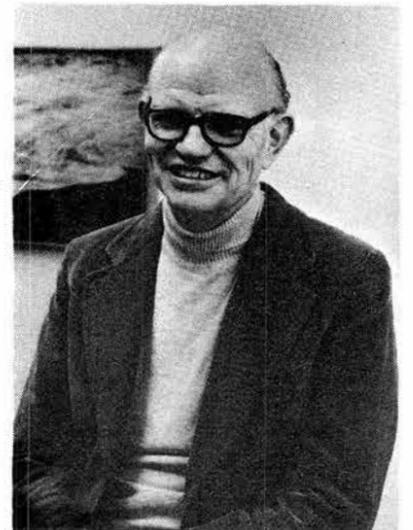
Harvey Kubiak (4040)



Harold Christenson (3434)



Sandy Sandoval (3612)



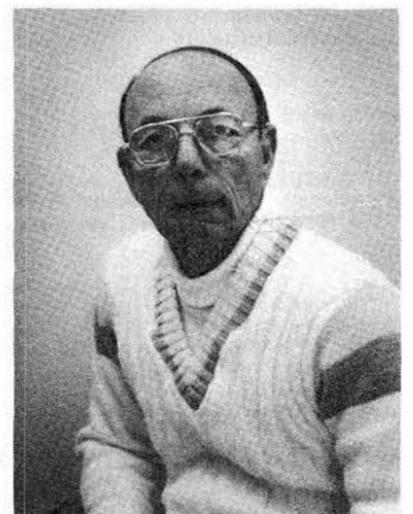
Bob Devore (2420)



Donald Wader (1474)



Jim Martin (2325)



Lloyd Melick (1721)

Perform a death-defying act.

Stop smoking.

Give Heart Fund
American Heart Association

reserve seats (bus capacity is limited) or for more information. Non-Wolpack members pay an additional \$10.

TRAVEL DIRECTOR Frank Biggs (4231) announces a new trip to Disneyland scheduled during the public schools spring break, April 14-18. The tour includes round-trip air fare, four nights lodging, a

side trip to San Diego via AMTRAC to visit Sea World, a Catalina Island cruise, and Disneyland. Magic Kingdom discount tickets are available at the Club office. Cost is \$290 for adults, \$225 for kids. Deposit \$50 now and pay the balance by March 2. Frank needs 20 sign-ups to make this trip a reality.

Events Calendar

- Dec. 19-21, 26-28—"Si, Hay Posada," bilingual Christmas story presented by La Compañia de Teatro de Albuquerque, 8 p.m., Kimo Theater, 766-7816.
- Dec. 20—Pueblo children's Christmas dances, 2 and 4 p.m., Indian Pueblo Cultural Center, 843-7270.
- Dec. 20—Metropolitan Opera Radio broadcasts: KHFM - 96.3 FM, KZIA - 1580 AM, 12 noon:
 - Dec. 20—Mozart's "Cosi fan tutte"
 - Dec. 27—Humperdinck's "Hansel & Gretel"
 - Jan. 3—Berg's "Lulu"
 - Jan. 10—Poulenc's "Carmelites"

- Dec. 24—Christmas Eve Luminaria Tour by Suntran, dusk, 766-7970, 842-0220.
- Dec. 26-Jan. 4—"The Flower Drum Song," Albuquerque Civic Light Opera, 8:15 p.m., Popejoy, 344-2317.
- Dec. 27-28—Civil War Living History Encampment, 9-5 p.m., Old Town.
- Jan. 6—Travel-Adventure film "The Magnificent World of the Mountain King," 7:30 p.m., Popejoy.
- Through Feb. 1—"The Nativity," paintings, stitchery, photographs and sculpture depicting the birth of Christ, St. John's Cathedral Gallery.