

GALS LIBERATE SECURITY FORCE — First female security guards in the AEC/SAN complex are now on duty at Sandia/Livermore. Here at Guard Post No. 1 in Administration Building 911 are (from left) Betty Bills, Mickey Crossen and Marilyn Rich. Employment qualification requirements for the gals are identical to those for male security guards.

LAB NEWS

VOL. 24, NO. 21

OCTOBER 13, 1972

SANDIA LABORATORIES • ALBUQUERQUE NEW MEXICO • LIVERMORE CALIFORNIA • TONOPAH NEVADA

Talk About Inflation

Biggest Balloon Used In Stratosphere Experiment

A huge balloon — 38 million cubic feet — launched from White Sands Missile Range Sept. 18 carried a 235-pound payload of instruments up to 159,000 feet.

A comprehensive atmospheric sampling experiment was successfully conducted in the upper stratosphere, some 30 miles above the earth's surface. Twenty instruments, provided by five agencies, made correlated measurements of atmospheric variables needed to understand the behavior of the stratosphere. The stratosphere can be considered as a gigantic turbulent system that presents to the researcher an imposing set of intricate problems. The variables of temperature, pressure, and density and the diverse chemical reactions are a function not only of altitude but also of latitude, time of day, season of the year and degree of solar activity.

Prime interest in this experiment centered on the chemical composition of the atmosphere and how the constituents react to solar energy during sunrise.

Two of these sophisticated instruments were Sandia provided — a cryogenically pumped quadrupole mass spectrometer (mass numbers 4-55) for neutrals and ions developed by Bob Woods (9226) and an ultraviolet photometer (2400, 2550, 2990 A), developed by Ralph Schellenbaum (9226). Their measurements will provide data on how the chemical compositions of interest react to variations in solar radiation.

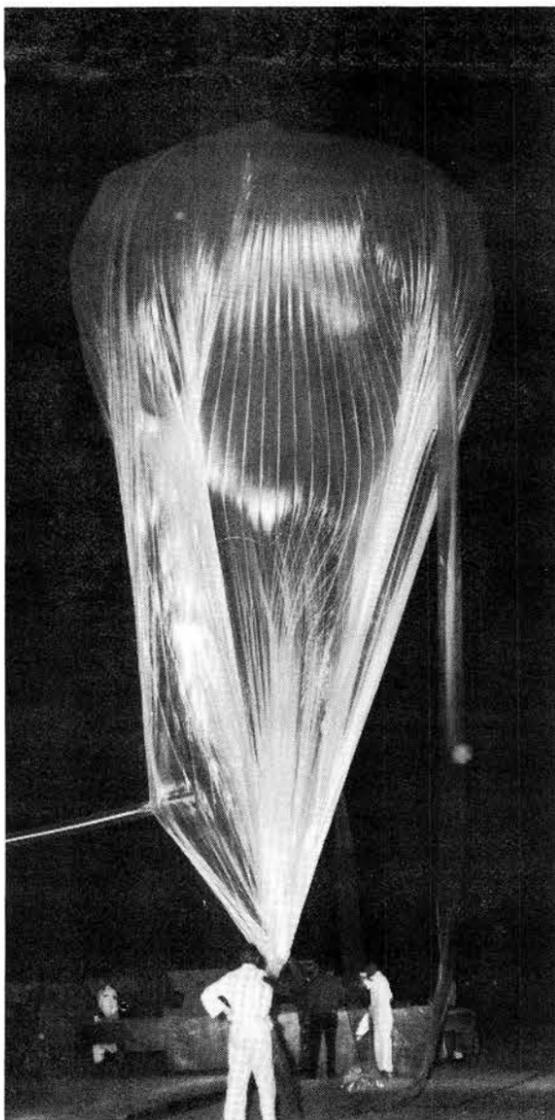
Additional instruments, from other research agencies and universities, included a positive-ion sensor, a dual chamber atmosphere sampler, chemiluminescent ozone sensors, bead thermistor temperature sensors, thermal conductivity pressure gauges, Geiger tube cosmic ray detector and aluminum oxide water vapor sensors.

That portion of the payload which provided power, command and control, and telemetry for the instrumentation was developed in Instruments and Sensors Division 9226 under Keith Smith. Preston Herrington was project leader.

The sensors and central package were assembled at Sandia and underwent environmental testing before launch.

"This is a Sandia specialty," says Frank Hudson (100), scientific consultant, "preparing complicated packages to function in extreme environments."

The experimenters and balloon launch team from Air Force Cambridge Research Laboratories sweated out two aborted launch preparations because of winds. Actual launch took place the third night at 4:04 a.m. The huge balloon, a long tube of 0.45-mil thick polyethylene, stretched some 700 feet along the runway at Holloman. The 45,000 cubic feet of helium it contained at ground level filled a volume of 38 million cubic feet in the stratosphere. Once released, the balloon rose



THIRTY MILES UP, the world's largest balloon supports a 235-lb. payload of instruments in a comprehensive stratosphere sampling experiment. Lower photo shows Air Force crew inflating one end of the polyethylene balloon with 45,000 cu. ft. of helium which expanded to 38 million cu. ft. at altitude. The payload, called the Sandia Strato-Lab, was suspended 1,300 ft. beneath the big balloon.

(Continued on Page Six)

Afterthoughts

Moppet Wisdom--From a composition on the telephone written by a grammar school child: "The diaphragm is part of a telephone. Maybe it is in the mouthpiece, maybe it is in the receiver. I do not know. It takes all my knowing to know it is part of a telephone."

* * *

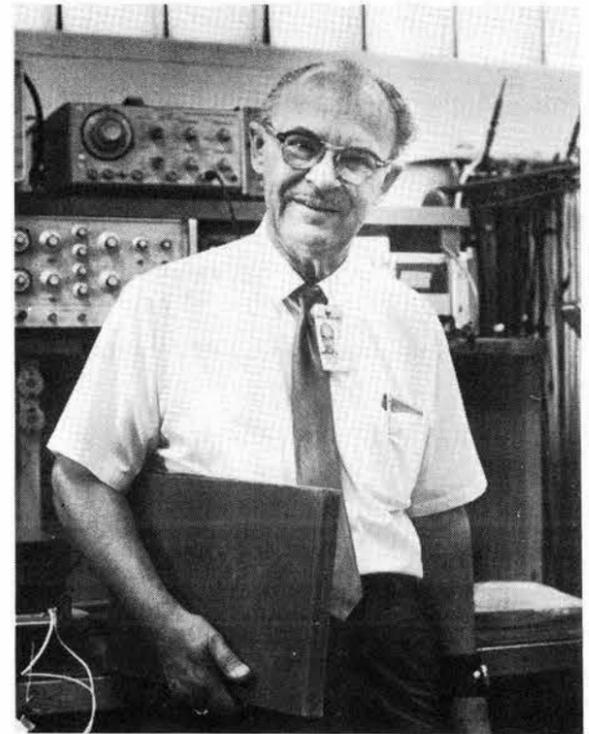
Gassy Economics--A while back I commented on the bizarre proliferation of gas stations. Their sheer number is puzzling. Today's puzzle: who buys gas at 41.9¢ when it's available at 26.9¢? One price is 56% more than the other, yet several local stations display hi-test at these prices. A little arithmetic shows that a car driven, say, 10,000 miles per year which gets 15 mpg will use \$180 worth of the 26.9 gas, vs. \$280 of the 41.9 stuff. And that hundred dollar saving is just what you need for those steaks you've been eyeing at the supermarket.

* * *

We're No. 1 !!--When a city emerges as pre-eminent in some way, it's customary for the forces of boosterism to do a little breast-beating about the accomplishment, e.g., "Dove Creek, Colorado--Pinto Bean Capital of the World." Well, recently, Albuquerque has surged to the fore and, by a calculation whose workings lose me, it has been established that we lead the nation in crime. Now it will take imagination and ingenuity, but we're gonna have to get some mileage out of our being No. 1 in something. How about a slogan--"Big A--The Nation's Leader in The Three R's"; then in somewhat smaller print you could define the 3 R's: robbery, rape, rowdiness. It's got possibilities...

* * *

Yet Another Law--Cohn's Law states: "The more time you spend in reporting what you are doing, the less time you have to do anything. Stability is achieved when you spend all your time doing nothing but reporting on nothing you are doing." *js



Supervisory Appointment

KEN FORTMAN to supervisor, Development Support Section 9334-1, effective Oct. 1.

Since joining Sandia in October 1948, Ken has worked in Field Test instrumentation development and installation. He was also involved with the development and installation of radar facilities at Salton Sea and Tonopah.

Before coming to the Labs, Ken was chief radio engineer for seven years for the Michigan State Police. He earned his BS degree in EE from Tri-State College, Angola, Ind. Ken is active in the Masonic organization and collects stamps and coins.

Ken and his wife Annetta have two children—a son in Oregon and a daughter in Florida—and five grandchildren. The Fortmans live at 605 Grove St. NE.

Events Calendar

- Oct. 14 — Football: U. of Ariz. vs. UNM, Stadium, 1:30 p.m.
- Oct. 14 — NM Mt. Club, Bearhead Peak, Gulf Mart, 8 a.m.
- Oct. 14-15 — Arthritis Foundation Annual Festival of Art, Hilton Inn, 1-6 p.m. For information, 265-1546.
- Oct. 15 — UNM Chamber Orchestra Concert, 4 p.m., Keller Hall.
- Oct. 16 — Roger Wagner Chorale, Popejoy Hall Series, 8:15 p.m., 277-3121.

- Oct. 17 — Audobon Wildlife Film Series, "Kentucky," wildlife and nature, 7:30 p.m. Popejoy Hall.
- Oct. 17 — Harvest and Social Dances, Laguna and Paraje Village.
- Oct. 18 — UNM Faculty Lecture Series, Klaus Keil, Dept. of Geology, "The Moon: Origin and History," 8 p.m., Kiva.
- Oct. 18 — Travel Film, "Mark Twain in Switzerland," 7:30 p.m., Popejoy Hall, 277-3121.
- Oct. 19-20, 22, 26-29 — Old Town Studio, Play Festival, 8:05 p.m., 242-4602.
- Oct. 20 — "Applause," Broadway musical, Road Show Company, Popejoy Hall Series, 8:15 p.m., 277-3121.
- Oct. 20-22, 24-30 — Albuquerque Little Theater, "The Silver Whistle," 8 p.m., 242-4750.
- Oct. 21 — NM Mt. Club, Cerno Pedernal (9857' near Coyote), Gulf Mart, 8 a.m.
- Oct. 22 — ASUNM Lecture Series, Rabbi Meir Kahane (head of controversial Jewish Defense League), 8 p.m., Popejoy Hall.
- Oct. 24 — Concert, Peter Nero, 8:15 p.m., Popejoy Hall.

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&

in Livermore Lorena Schneider does all

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Doctoral Study Program Accepting Applications

Applications are now being accepted for the 1973 Doctoral Study Program (DSP). Under the DSP program, selected employees work full-time (up to three years) toward their doctoral degrees while remaining on roll (at reduced salary). SLI 4558 specifies that DSP candidates be MS-level employees of exceptional merit and ability whose personal characteristics, past job performance, and academic history indicate high promise in Sandia work at the doctoral level. Also, candidates must have two years of experience on the job at Sandia prior to January 1973.

A previously nominated but not selected candidate is eligible if again nominated by a director. Also eligible are former employees on educational leaves of absence, currently working on doctorate degrees.

Although nominations to the DSP are made in writing by line organization directors, eligible candidates are asked to contact Don Hosterman (3134), ext. 5862 at Albuquerque, or Jim Smith (8236), ext. 2150 at Livermore, for further information and application forms.

Eight participants were selected last January and have just begun work on doctorate degrees. On the Purdue campus are Chuck Carson (1214), Jim Cooper (1932) and Ron Rodeman (1542). At Stanford University are Bruce Bulmer (5628), Douglas McGovern (1213) and Dan Tichenor (8411). Billy Sanders (8175) is at the University of California at Davis and Jim Van Den Avyle (5535) is at MIT.

Take Note

Mike Rogers of Physical Properties Acceptance and Evaluation Division 8137 received a BS degree in electrical engineering recently from California State University at San Jose. His course work was completed under Sandia's Educational Aids Program over an eight-year period. Mike previously received his AE degree in structural engineering technology from Cogswell Polytechnical College, following which he joined Sandia. He has worked primarily in acceptance equipment design and nondestructive testing.

Sympathy

To Bob Bedford (8181) for the death of his brother in Mentor, Ohio, Aug. 23.

To Ed Barsis (8342) for the death of his father in Yonkers, N.Y., Sept. 13.

To Jesse Burns (8411) for the death of his mother in Lovington, N.M., Sept. 9.

To Matt Connors (8232) for the death of his father in Las Vegas, Nev., Sept. 27.

To John Neuberger (8412) for the death of his brother in Chicago, Ill., Sept. 17.

To Bob Tirnetta (8257) for the death of his father in Livermore, Sept. 19.

Congratulations

Mr. and Mrs. Gary Beeler (8178), a son, Brian Scott, Sept. 7.

Mr. and Mrs. Ralph Clark (8412), a son, Troy Edwin, Aug. 28.

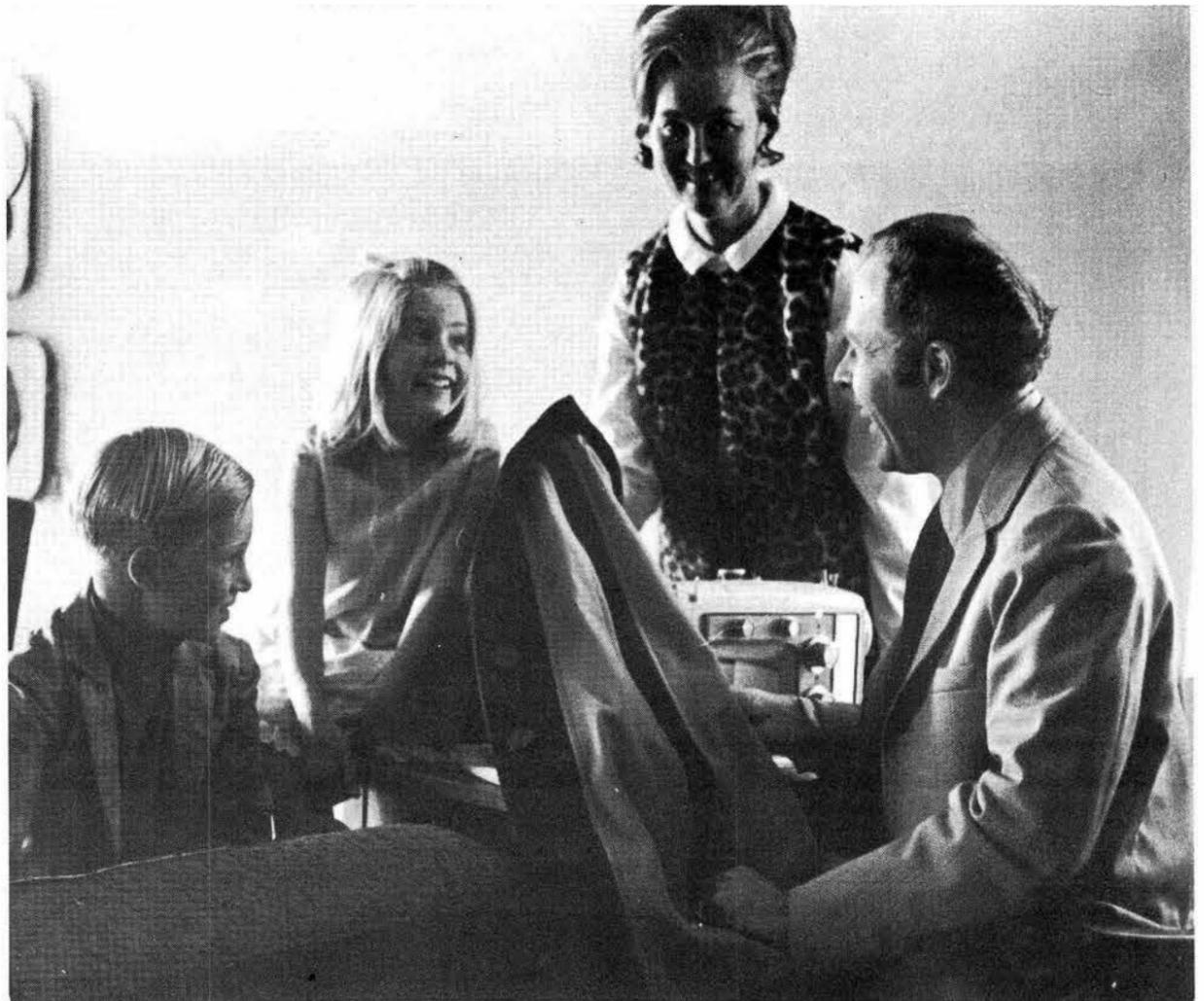
Claire Bokanich (8217) and Wesley Jost married in Livermore, Sept. 1.

LIVERMORE NEWS

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LIVERMORE LABORATORIES

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A "JACK MARTINELL" SUEDE CLOTH CAPE (above) is one of many outfits Jack has "built" for his family — Curt, Karen and wife Darlene. The cape required a complete re-do of the back after the original vinyl gores crinkled and shrunk in the making.

Sandia Engineer Builds Family Wardrobe

"I'm a builder by nature, so I enjoy putting things together — from model airplanes to electronic items," says Jack Martinell who by profession is an electrical engineer in Statistical and Reliability Division 8139.

But, sewing and tailoring?

"Just a continuation of my building hobbies — and probably more useful," he explains. "It definitely doesn't take as long to 'build' a garment as it does a model and brings a lot more pleasure to my family. They enjoy wearing what I make, and that's satisfying to me."

Jack's first attempt at sewing occurred about eight years ago when the family was moving into a new home. The new linoleum contractor also sold fabrics, at quite a discount, so my wife Darlene and I decided to make the draperies for the entire house. As it turned out, this involved too much bulk for her to handle, so I took over the measuring and laying things out, then cutting the material and finally, the sewing. Not only did we save a hundred dollars, but we had better quality draperies with millium linings for good insulation.

Dressmaking, however, came some time later. "We were shopping for clothes one day when Darlene picked out a \$25 cotton dress she rather liked," says Jack. "I mentioned that we could make it ourselves, and since she didn't sew very much, I offered to try. This led

us to a fabric shop where we found a dress pattern similar to the dress she had tried on, some material, and notions to go with it. The dress turned out fairly well, and from then on it became quite a challenge because I could see things we should have done differently.

"So, more material and different patterns. I picked up a few ideas from the instruction sheets with the patterns and figured some things out on my own — like how to modify a pattern to produce a good fit. I guess I had made her about a half dozen outfits when my daughter Karen wanted me to make her something. We bought more patterns and materials and I finished several dresses for her. On occasions we've even used material from Darlene's outdated dress styles to make dresses for Karen.

"Next, I made a sport jacket for my son Curt — my first experience with tailoring. The sleeves are getting a little short for him but he's worn it about three years. Now he's after me to make him some crushed velvet slacks.

"A sport jacket for myself turned out to be somewhat of a problem because there weren't many men's coat patterns available. I finally found one in my size along with some wool herringbone, lining, etc., and proceeded to build the jacket just from the pattern instructions. I didn't know what a padding stitch was, how to properly fasten the interfacing in with the padding stitch, or how to make welted pockets. All of this I had to deduce on

my own. I still wear the jacket, but it isn't quite as good a fit as my latest polyester jacket.

"Since then," he continues, "I've finished a coat and dress ensemble and an attractive suede cloth cape for Darlene, plus a few more dresses for Karen and polyester slacks for myself. The double knit polyester fabrics are easy to sew, don't ravel when cut, are very comfortable to wear, and can be laundered."

Jack says he plans to do more tailoring for himself now that the cost of men's clothing is going up. "I can make a fully lined sport jacket of the best polyester fabric available for about \$20, and matching slacks for about \$12.

"I always look for easier and more efficient ways to do things, while producing a good job that will be durable," he adds. "For instance, instead of a padding stitch I used a heat activated, polyester bonding material to fasten the interfacing into my last sport coat. I cut a piece of the bonding material the size of the interfacing, laid everything out on the ironing board, then steam ironed the face material and interfacing together. It worked so well I no longer stitch in the interfacing. The bonding system gives the jacket a lot of body and it launders fine.

"I find I pick up new techniques as I go along. Part of the challenge is figuring things out for myself — like reinventing the wheel, I guess, just for my own enjoyment," Jack concludes. • Is

'It's Not Like Climbing In The Sandias'



Jack Hickman (1652) high on Chopicalqui, whose summit reaches 20,998 feet.

Three Sandians were in a party of six climbers which made a successful ascent this summer of one of South America's highest peaks, Chopicalqui, higher at 20,998 feet than North America's Mt. McKinley. The moun-



Walt Herrmann (5160) wears crampons across glaciated area.

tain is located in the Cordillera Blanca range of the Andes in Peru.

Don Mattox (5332), Jack Hickman (1652) and Walt Herrmann (5160) are the three, and we talked with Don about the expedition. All are experienced climbers.

"On Chopicalqui you're on a big mountain. It's not like climbing in the Sandias," Don relates. "After being trucked into Llanganuco Lakes at 13,000 feet we started packing our gear up the valley to the first camp at 14,500 feet. No porters, just us. We planned to acclimatize ourselves through a combination of work at high altitudes and two-day camps at higher and higher elevations."

The scheme succeeded. Additional camps were established at 16,500 and 18,500 feet. The work consisted of lugging the gear, about 60 to 80 pounds per climber, up to each new camp site. Two trips were required. Because the mountain is glaciated above 16,000, the route upwards grew more tortuous as the climbers picked their path around the many crevasses.

It is generally agreed that above 18,000 the body can no longer acclimatize no matter how long one remains at that altitude. The party thus established its final camp at 18,500. After one unsuccessful try for the top, another attempt was made the following day and this proved successful.

"How long did you stay on top?" we asked. "About five minutes — it was completely soaked in, couldn't see a thing," Don

recalls. "And once up, we had to get down before nightfall. As it was we were using our headlamps when we finally arrived back at the camp at 8 in the evening."

If you're wondering why the group happened to select this particular mountain (it had been climbed before), two elements figured in their decision. First is accessibility. The second derives from the climbing mystique — serious climbers regard the surmounting of 6000 meters/20,000 feet as one climax in their love affairs with mountains. •js



Don Mattox (5332) ropes up.



Cloud, snow, ice, and rock are the elements primeval of the high Peruvian mountain.

Retiree Report

Sandia's retiree rolls keep growing. Occasionally LAB NEWS hears from some of these former Sandians. We thought perhaps our readers might enjoy some of their news notes.

How about it, retirees? Write and tell us what you've been doing — unusual vacations, community activities, volunteer work, "second" careers, hobbies — we'll even pass along your advice to pre-retirees.

—Norma

* * * *



CARL AND FAY NYLANDER stopped at the summer home of relatives near Goteborg, Sweden.

Nylanders Spend Three Months Visiting in Sweden and Norway

Carl Nylander retired from the Labs drafting organization in June 1971 and says he has been busy and happy with the change of pace. He and his wife Fay spent the summer in Sweden and Norway seeing the fjord country and the coast of Sweden, visiting relatives and the localities where Carl's parents lived and grew up.

"I especially enjoyed seeing the old farm and the house where I was born," Carl says. "Both countries were beautiful," Fay adds. After talking with the Nylanders you get the impression of clean cities with lovely homes, parks, gardens, impressive public buildings aged as well as modern — an abundance of flowers and, naturally, splendid scenery — fjords, mountains, vegetation, waterfalls and rivers. "And, don't forget the food," Carl remarks, "early morning coffee and rolls, breakfast about 8 a.m., mid-morning snack, hot lunch, afternoon coffee and cakes, dinner, and a bedtime snack." "It's a good thing we did a lot of walking," Fay adds.

Carl has this advice for pre-retirees — "don't worry about the reduced income — the slower pace of living and entertaining will not eat up the cash.

"For overseas vacation I recommend passenger freighters," Carl says, "no crowds, about 10 or 12 guests, good food and leisurely days. A working knowledge of the language of the countries visited is very helpful."

Dorothy — Busy and Involved

Since her retirement in April 1970 from the Technical Information Department, Dorothy Matlack hasn't had time to become bored. In a recent note she says, ". . . I have worked for the editor of the New Mexico Horse Bulletin as secretary and research assistant; been a secretary for a lawyer, temporarily; worked for Kelly Services, including several days work with Nancy Koch, City Commissioner; typed three books, two of which were novels and one of which was *Old Houses of New Mexico and the People Who Built them*, which has just been published."

Dorothy's hobbies include ceramics and oil painting. She works as a volunteer in the office of the Animal Humane Association one morning a week, and has just become a volunteer to assist the Red Cross in their Project FIND. "This project," Dorothy says, "aims to assist eligible people to obtain food stamps or welfare assistance. Quite a number of people are not aware that they are eligible and do not know how to apply, especially older people."

* * * *

Albert Elwell — A Second Retirement

Albert Elwell left Sandia in January 1967. He had worked as a physicist in ultrasonic and high temperature testing. Recently he was honored at a farewell coffee on the occasion of his second retirement — from the electronics faculty at T-VI.

He is very active in Masonic work and is Deputy Grand Commander of Knight Templars of the Yorkrite Masonic Bodies. His wife Ruth also retired this summer after 19 years with the Albuquerque Public Schools. For the last 15 years she taught at Whittier Elementary School.

The Elwells have no special plans. They may travel a little, which they enjoy. They have been to the Middle East, Yucatan, Central America and the Hawaiian Islands.

* * * *

Isais Chavez — Builds Dog Houses

Isais Chavez retired from Sandia's General Stores Division 12 years ago. In the first years of his retirement he was involved with his son in the home building trade. "I'm still actively building, but on a much smaller scale — I build and sell dog houses," he says.

"There is never a dull moment for us," Isais continues. "We have six sons, two daughters, 37 grandchildren (of which 23 reside here in Albuquerque), and seven great grandchildren.

"I'm very active in the Republican Party, the Knights of Columbus Mountainair Council 3138, past Grand Knight twice, the most recent term being 1971-72. I am active in the Mens Action Club at Holy Ghost parish. My wife and I are also members of the Blessed Sacrament League.

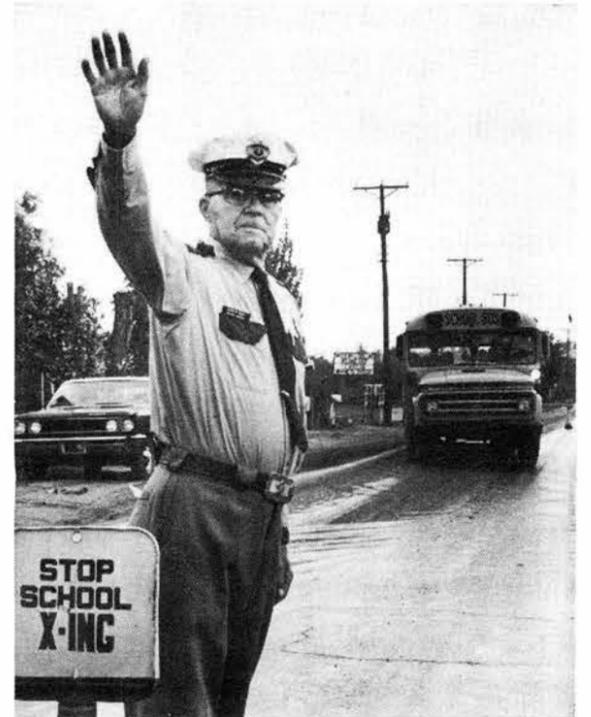
"We certainly enjoy and look forward to the Sandia annual retiree dinner. My advice to pre-retirees would be . . . what else? Stay active!"

Willard Enterprises

Willard McCormick, a 1970 retiree from the electromechanical group, Rolamite section, has embarked upon a second career. He is the owner of Willard Enterprises in Espanola, N.M. He rebuilds, repairs and designs all types of surgical instruments, does experimental and general precision machining, is a technical consultant and designer, makes prototypes and models, and does laboratory type silver soldering.

"I do consulting and designing for doctors and hospitals in the southwest . . . small but growing," Willard says. "I also hold a state certificate and have been teaching tool and design and skill improvement at the Espanola T-VI, a branch of El Rito."

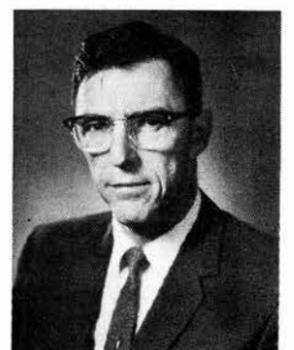
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CHARLIE ROSS retired from Sandia's motor pool in January 1964. He soon became a school crossing guard for Mission School at Edith and Mission NE, and this school term marks Charlie's seventh year on the job.

And finally, a short note from Ramon Bernal who retired from Sandia's labor pool in August 1969, to tell us that he is still busy with his farming, raising alfalfa and a very large garden. He has added gathering and selling scrap copper and aluminum to his other activities.

Retiring



Barbara Hammond (9442) Richard Murdoch (1331)



* * * *

Take Note

You can turn on an electronic gadget. Or electronic gadgets can turn you on. If you're in either group, you'll want to attend New Mexico's own Electronic Trade Show on Oct. 17 at Holiday Inn East from 10 a.m. to 7 p.m. You'll see some of the newest instruments and components selected from WESCON and other recent trade shows. Products from over 200 manufacturers, presented by 16 local manufacturers representatives, will be displayed. The show is part of the New Mexico Electronic Representatives Association Annual Caravan touring the state Oct. 16-20.

* * * *

Bill Stamm (4543) has sent us this year's schedule of Audubon Wildlife Films which will be shown at Popejoy Hall. The series is sponsored by several conservation organizations, including the Audubon Society and the Mountain Club, and starts next Tuesday, Oct. 17, with the showing of "Kentucky Out Of Doors" at 7:30 p.m. Four more films are scheduled through February. A season ticket is five dollars, while single admission is \$1.50. Contact Bill if you wish a brochure on the film series.

Recreation Notes

FUN & GAMES

Sandia Lab Tennis Association Fall 1972 Tennis Tournament results are:

Singles Tournament:

First Place — Charlie Chavez (4337)

Second Place — Herman Smith (AEC/ALO)

Doubles Tournament:

First Place Team — Bob Scipes (4123) and Charlie Chavez

Second Place Team — Gary Carlson and Tom Kerley (both 5324)

* * * *

The Sandia Employees Bridge Association (SEBA) recently completed their Open Knock-Out Team-Of-Four Duplicate Bridge Tournament. Eleven teams entered this competition nine months ago. The undefeated team was composed of Dick West (1315), Jerry Shinkle (1322), Eddie Walker (1641) and Louise Fornero (wife of Chet, 4361). A similar tournament is scheduled for next year.

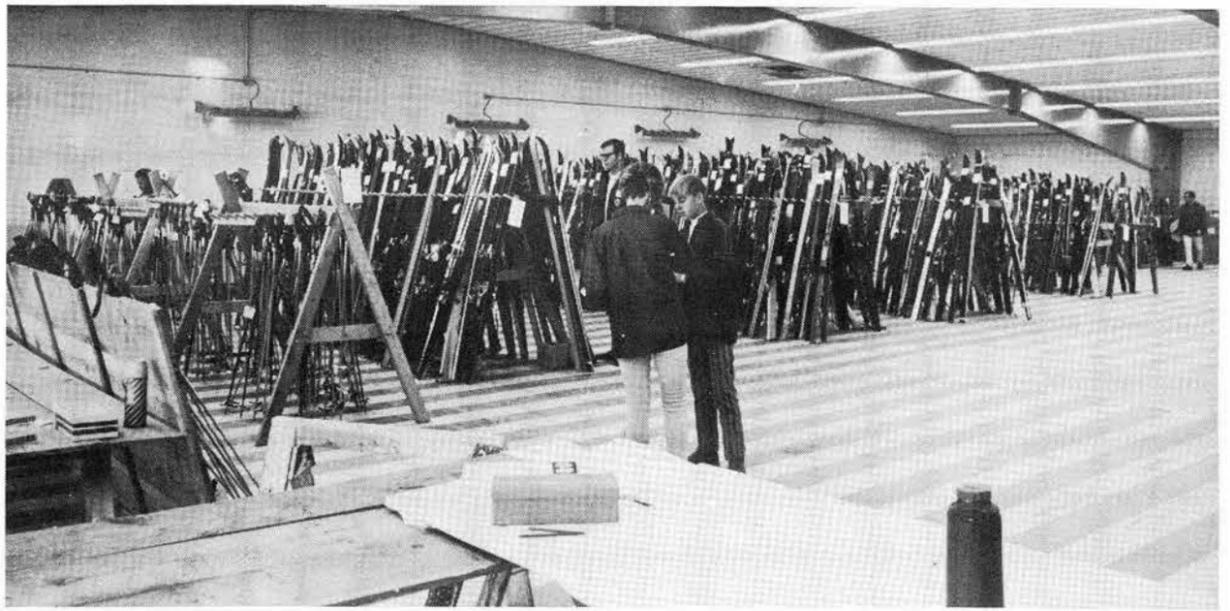
Activities for the remainder of the year include a winners team tournament on Nov. 9, and an awards party on Dec. 14.

* * *

Handballers — Sandia's two exemplar players, Linus Phillips (1612) and Joe Abbot (1934), have an interesting proposition: show up at the Base gym Saturday mornings between 10 and 12 and either or both will take on all comers. Linus reports that the courts are almost always available at that time, so that everyone showing should get lots of play.

* * *

The Sitzmarkers are a local sporting group whose several hundred members have been known to drink a beer, listen to a little rock, maybe do some dancing, and other things. Oh yes, and ski. Anyhow, Jim Davis (1721) is president and Jim announces that the Club is having a party for the membership tonight, Oct. 13, at the Firefighters Hall at 412 Cedar SE. Bring money and thirst (the money's for dues — eight bucks).



(1) BEFORE & (2) DURING the onslaught. Every year the Sandia Peak Ski Patrol holds a Ski Swap in which about three zillion skis, boots, and other ski items are offered at cheap prices. Skiers sell used gear, purchase new stuff. Patrol gets 10% commission, uses proceeds to buy cheerful things like rescue toboggans, splints, and the like. Paul Souder (1513) is Swap Honcho this year, advises skiers to register items for sale Friday, Oct. 20, join happy throng at sale on Saturday the 21st. Site: Flower Bldg. State Fair Grounds.

Continued From Page One

Stratosphere Balloon Experiment

at about 1000 feet per minute. The 235-pound payload was reeled down 1,300 feet on a nylon line.

During the ascent, the balloon drifted about 40 miles east. After reaching altitude, it reversed direction and drifted westward so that at 6 a.m. it was directly over the launch site. Readings continued to be made every 15 minutes until 9:45 a.m. when the decision was made to terminate the experiment while conditions for recovery of the payload still looked favorable.

The payload came down about five miles southwest of Hot Springs. It was recovered by Tom Devlin (9226) and Bob Male (9485) using a direction finding system developed by Dave McVey (5626).

Other Division 9226 people participating were Ed Marsh, mechanical design of the central package; Rex Myers and Dennis Reynolds, ground systems; and Les Sandlin,

who worked on both the central package and ground systems.

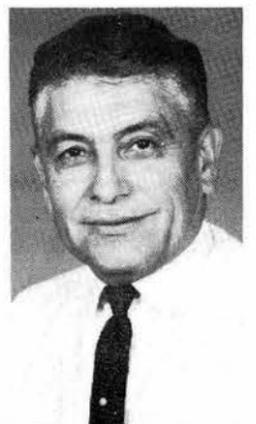
The experiment was a joint effort of the Army Electronics Command's Atmospheric Sciences Laboratory at White Sands, the Air Force Cambridge Research Laboratories (which provided the balloon) and Sandia. Also included were experimenters from the University of Texas at El Paso, Pennsylvania State University's Ionospheric Laboratory and Panametrics, Inc., of Waltham, Mass. James Dwyer (AFCRL) was the balloon designer and Harold Ballard was project manager for ASL.

Death

Ben Salazar, a shipping and receiving clerk in Division 4623, died suddenly Sept. 23. He was 55.

He had worked at Sandia since September 1950.

Survivors include his widow, two daughters and four sons.





HAPPINESS IS riding the new Sandia 3 bus from home to work. Folly is living in the Arroyo del Oso area and not riding it. It's express, it's fun, it's economical, and

it probably won't take more than five minutes extra. The schedule appears on this page; Ben Bader (1543), who got the route started, can answer other questions.

Why Ride a Bus?

The Hard Core Bus Riders

LAB NEWS likes buses — and bikes and car pools — because they reduce traffic congestion and air pollution. So we sent a reporter on the old Sandia 1 route (established June 1, 1965) last week to find out why people get the bus habit. He didn't hear any novel reasons for bus addiction, but the ones he heard were adamantly propounded: "Hell, I'd have to buy a second car if I didn't ride the bus," said one rider. "I can leave the car home for my wife so she can chauffeur the kids around town," said another.

Several emphasized relaxation: "It may take a few minutes longer to get home, but I don't need time at home to unwind," and "I started riding the bus when I got fed up with fighting traffic twice a day." "You don't have to worry about finding a good parking spot when you get to work either," added one of the women.

If you don't spend your travel time being frustrated by traffic, what do you do? Well, you may read a newspaper, but you're more likely to talk with your fellow travelers. Or perhaps you'll just sit quietly.

As we said, it's relaxing. Live near a bus route? Glance at the schedules below to find out.

Sandia 1	Sandia 2
7:00 Girard & Central	6:54 Carlisle & Central
7:05 Girard & Ind. Sch.	6:59 Carlisle & Menaul
7:10 Carlisle & Cand.	7:05 Carlisle & Com'che
7:20 Louis'na & Cand.	7:12 Louis'na & Com'che
7:25 Wyo. & Menaul	7:20 Morris & Com'che
7:33 Wyo. & Central	7:31 Morris & Lomas
7:42 West of Area I	7:43 Gate 7
7:45 Gate 10	7:50 Gate 3

Sandia 3
7:15 San Pedro & Mont. (then north & east)
7:22 Louis'na & Osuna (then loop via Penn.)
7:27 Louis'na & A. del Oso
7:30 Louis'na & Mont.
7:45 West of Area I
7:48 Gate 10

In the afternoon, Sandia 1 leaves Gate 10 and Sandia 2 leaves Gate 3 at 5:10 p.m. Sandia 3 leaves Gate 10 at 5:05 p.m. All buses reverse their morning routes. •bh

Authors

C. Arnold and L.K. Borgman (both 5511), "Chemistry and Kinetics of Polyimide Degradation," Vol. 11, No. 3, INDUSTRIAL & ENGINEERING CHEMISTRY PRODUCT R&D QUARTERLY.

W.J. Brya (5132), "Brillouin Scattering From A Microwave-Phonon Bottleneck in MgO:Ni²⁺," Vol. 6, No. 5, PHYSICAL REVIEW B.

J.T. Grisson (1412), "Slow Electrons from Electron-Impact Ionization of He, Ne, and Ar," Vol. 6, No. 3, PHYSICAL REVIEW A.

H.S. Levine (5324), "Formation of Vapor Nuclei in High Temperature Melts," Vol. 76, No. 18, JOURNAL OF PHYSICAL CHEMISTRY.

D.D. McBride (5628), "Condensed Zinc Particle Size Determined by A Time Discrete Sampling Apparatus," Vol. 10, No. 8, AIAA JOURNAL.

R.E. Cuthrell (5331), "Epoxy Polymers V. Dielectric Strength," Vol. 16, No. 8, JOURNAL OF APPLIED POLYMER SCIENCE.

G.J. Simmons (1721), "A Quadrilateral-free Arrangement of Sixteen Lines," Vol. 34, No. 1, Proceedings of the AMERICAN MATHEMATICAL SOCIETY.

C. Albright (1433), "The Low Strain Tensile Behavior of U-7.5 Wt Pct Nb-2.5 Wt Pct Zr," Vol. 3, No. 8, METALLURGICAL TRANSACTIONS.

R.L. Gerlach (5332) and A.R. DuCharme (5331), "Total Electron Impact Ionization Cross Sections of K Shells of Surface Atoms," Vol. 32, No. 2, SURFACE SCIENCE.

J.W. Nunziato (5161), "Propagation and Growth of Shock Waves in Inhomogeneous Fluids," Vol. 15, No. 8, THE PHYSICS OF FLUIDS.

L.E. Pope (5133), "The Effect of Plastic Deformation on the Martensite-to-Austenite Transition in an Iron-Nickel Alloy," Vol. 3, No. 8, METALLURGICAL TRANSACTIONS.

R.G. Easterling (1643), "A Personal View of the Bayesian Controversy in Reliability and Statistics," August 1972 issue, IEEE TRANSACTIONS ON RELIABILITY.

Congratulations

To Mr. and Mrs. John Ledman (5535), a son, Eric Andrew, Sept. 25.

To Mr. and Mrs. Carl Bailey (5422), a son, Mark Greene, Sept. 19.

Sympathy

To L.L. Motichko (7154) on the death of his brother in Pennsylvania.

To Barbara Curry (1930) on the death of her mother in Birmingham, Ala., Sept. 30.



SOME photos need captions. Some don't. After all, what could you say under the painting of the Mona Lisa — "Italian lady laughs it up"? So Wayne Sebrell (1544) had a birthday and thoughtful colleagues prepared a, uh, cake and — well you can take it from there. (P.S. Re birthday/other cakes: call us only when cake is more spectacular than this.)



Charlotte Gilmer - 4152

15



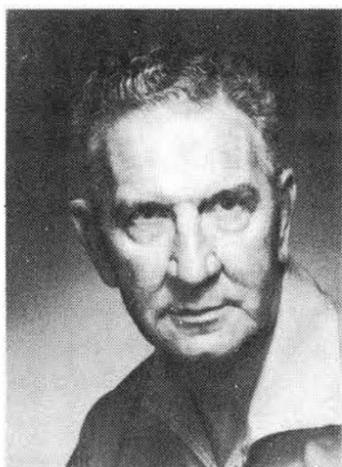
Leonard Motichko - 7154

25

MILEPOSTS

LAB NEWS

October 1972



John Kilmartin - 7113

15



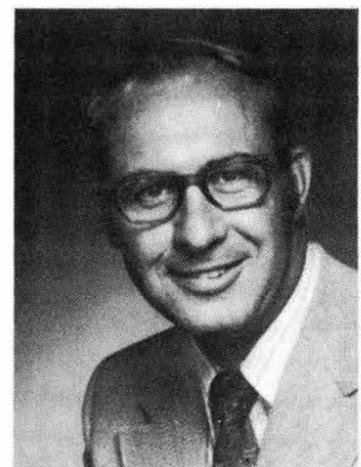
Tommy Glauner - 7623

20



Howard Shelton - 3134

20



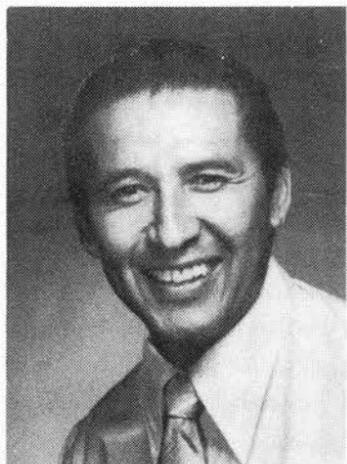
William Clement - 1341

15



James Holpp - 7415

20



Louis Flores - 9343

20



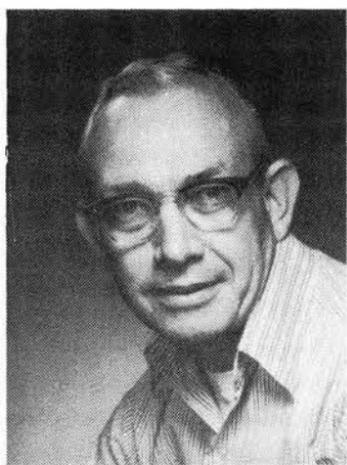
Opal Noel - 7415

15



Bert Barker - 8322

15



James Bedeaux - 7113

25



James Kenagy - 7110

20



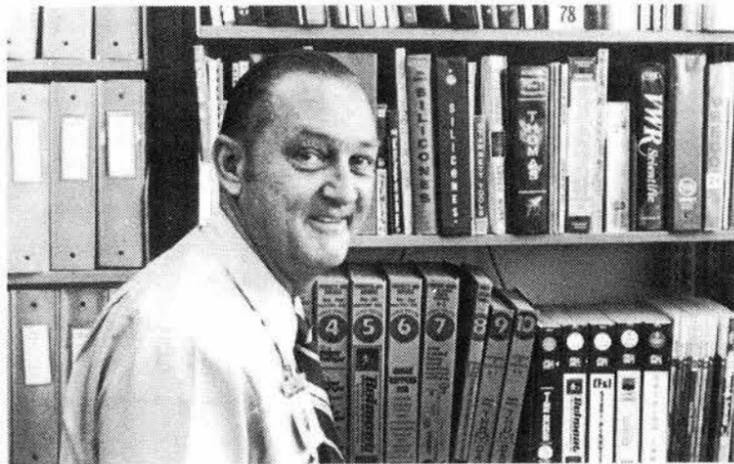
Walt Paxton - 4614

25



Vera McCullough - 3256

10



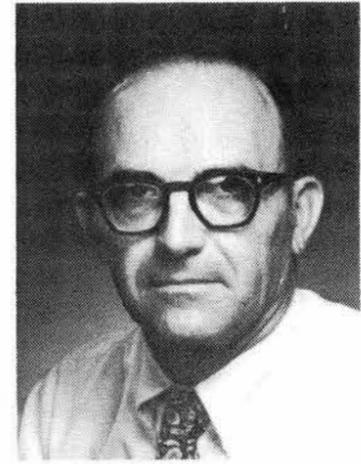
Clarence Olson - 7623

15



Leo Cordova - 4137

20

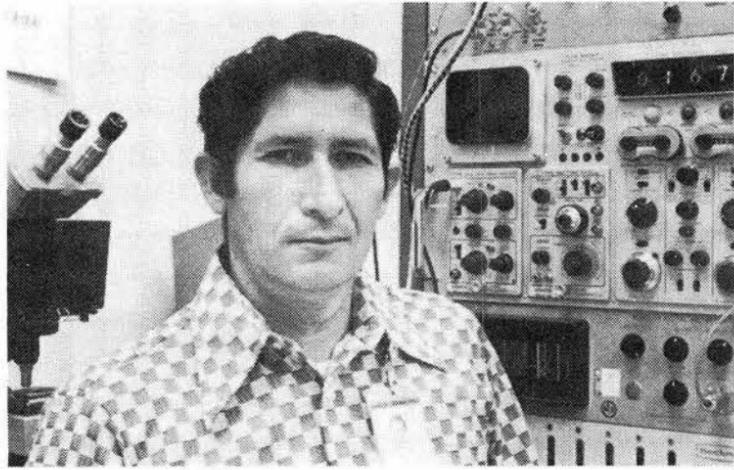


Ervin Armbrust - 3513

20



Daniel Padilla - 9217 25



Jerry Campos - 7134 10



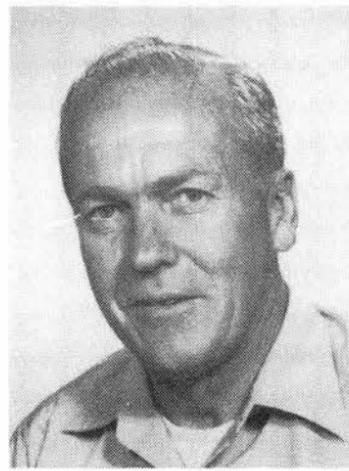
Eldon Coomes - 9341 20



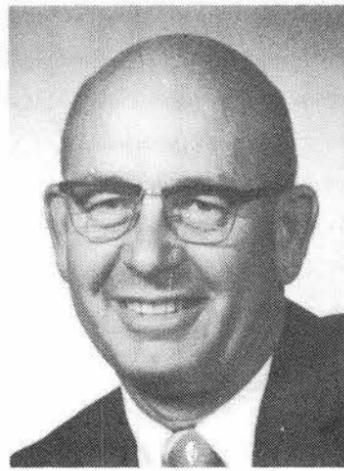
W. A. Warren, Jr. - 4374 20



Norman Smith - 5428 15



Harry Warrick - 9342 20



Forest Baker - 7114 15



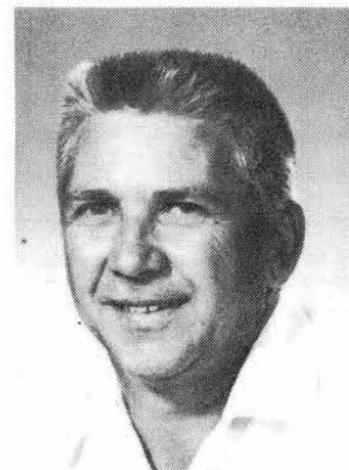
Reuben Minter - 7616 20



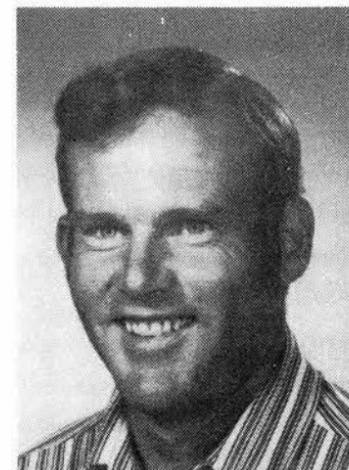
Roland Hewitt - 9213 15



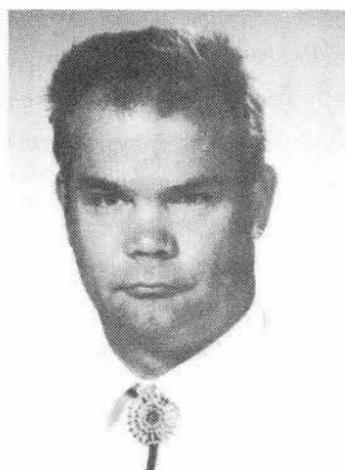
Virginia Hamblett - 3141 10



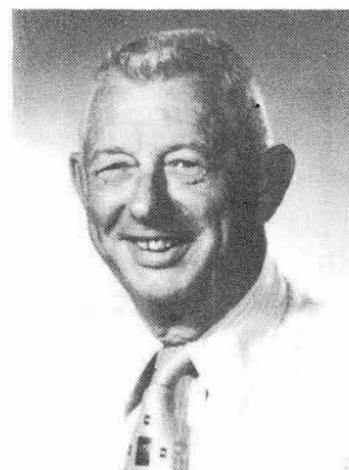
Edwin Machin - 1433 20



Jack Kiker - 5627 15



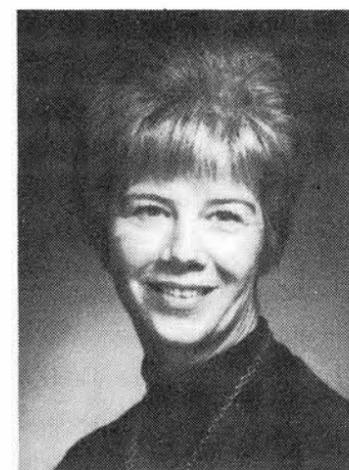
Kenneth Shrock - 9483 15



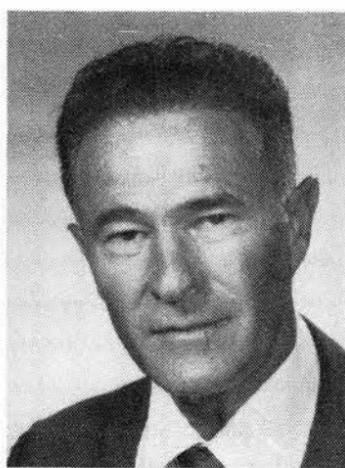
John Richardson - 1526 15



Joe Flanagan - 7545 15



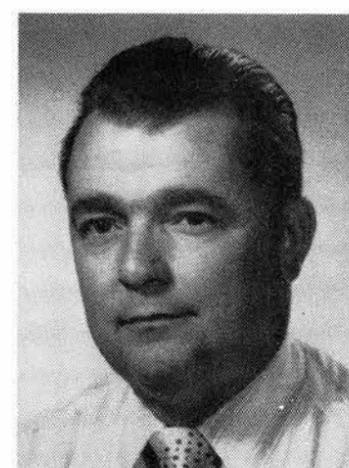
Frances Savage - 7111 20



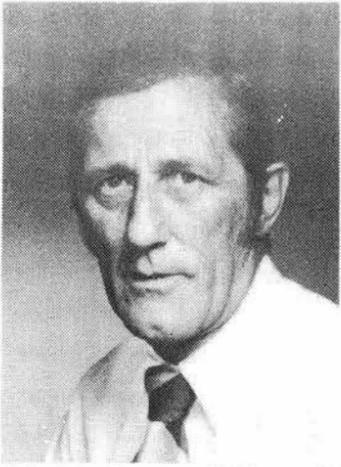
Bonnie Prentice - 1225 20



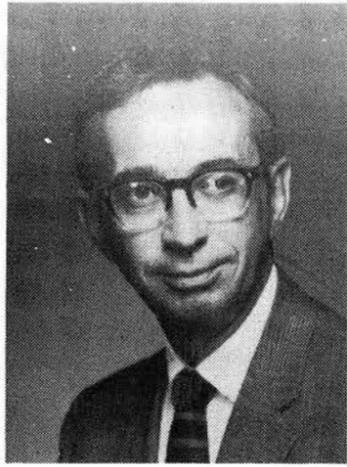
Richard Baff - 9124 15



Curtis Warthen - 9482 15



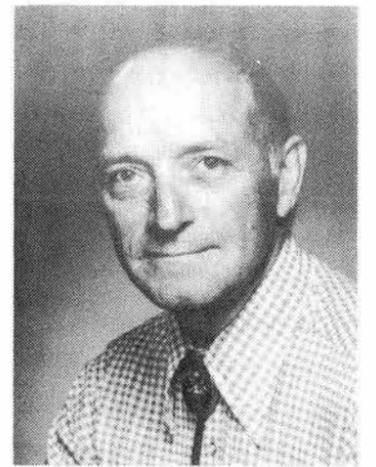
John VonDreele — 1324 20



Robert Williams — 4314 15



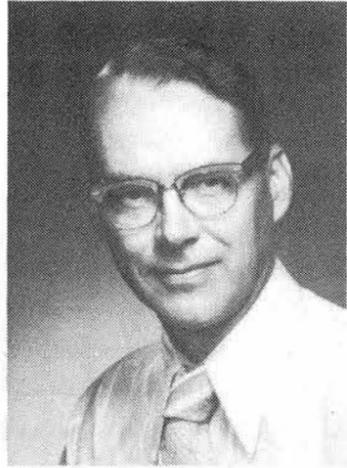
Loretta Marmon — 3302 15



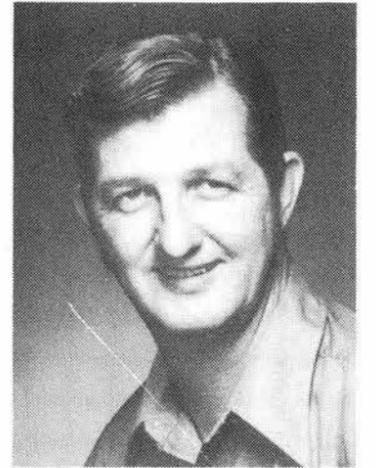
Robert Weaver — 7122 15



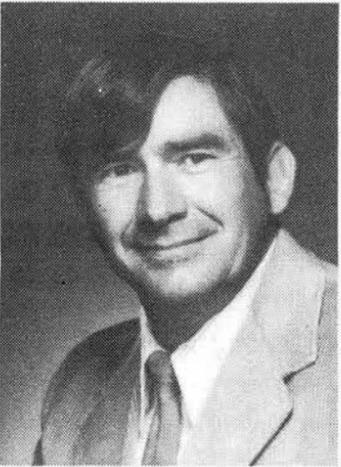
Luis Sandoval — 4613 10



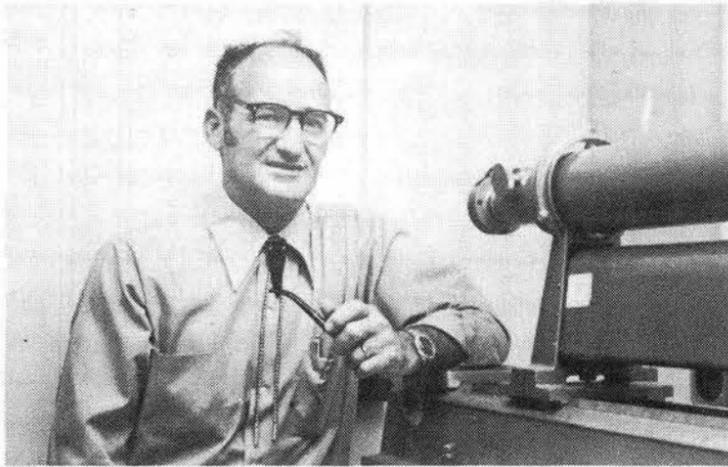
James Sims — 7623 20



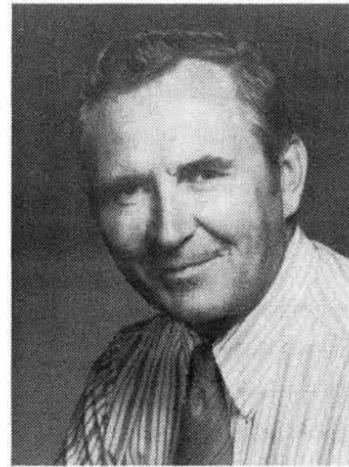
Larry Tichenor — 7122 15



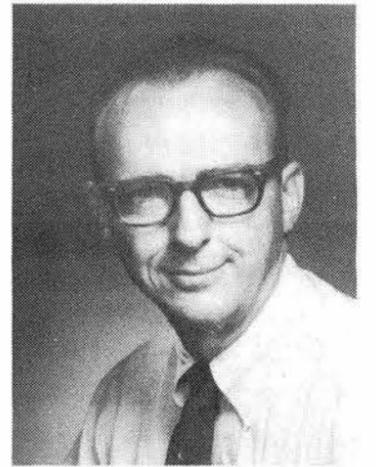
Wayne Cyrus — 5314 20



Earl Saxton — 9312 20



John Hall — 4543 10



James Peek — 5234 10



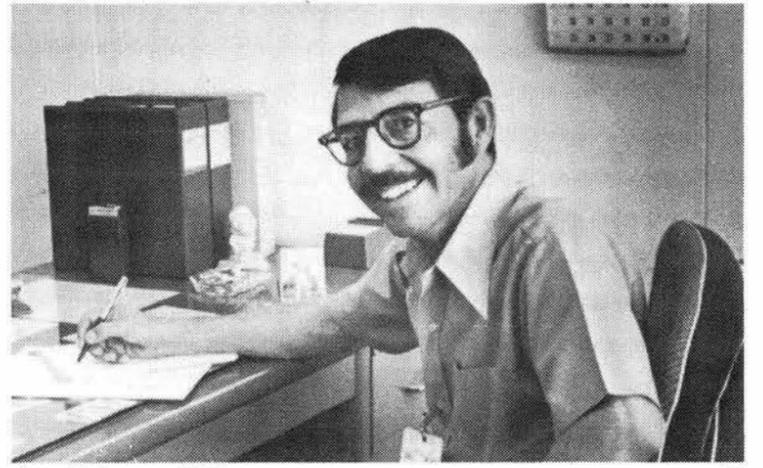
Reba Garrison — 1210 15



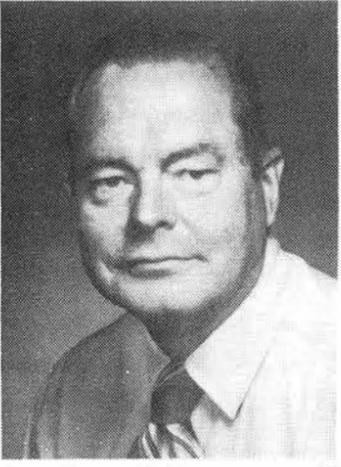
Bert Lindsay — 1724 15



Philip Jockle — 9323 25



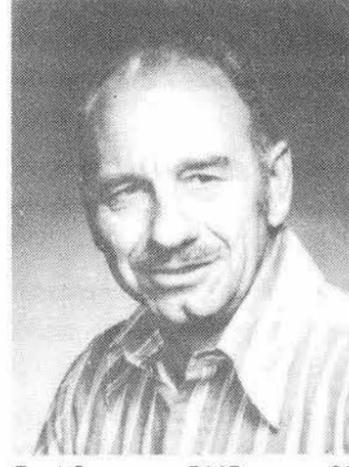
Juan Griego — 4137 20



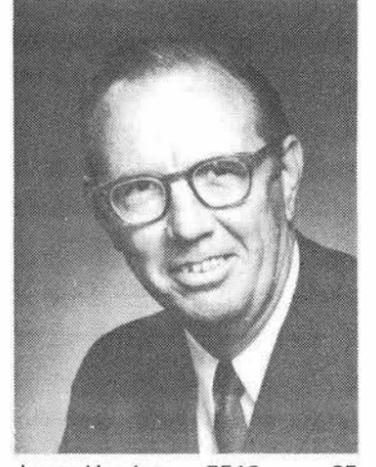
Russ Hall — 3511 20



Walter Granfield — 1220 15



Fred Gregory — 7145 20



James Harrison — 7512 25

LARGEST CLASS OF GRADUATES from the Machinist Apprentice Program are now Tech 2 machinists in Org. 7140. With C.C. Paschal, supervisor of Apprentice Section 7146-3, are (1 to r): Irl Vance, Raymond Perry, Michael Valerio, Ray Peter, Daniel Archuleta and Fidel Perez. Looking over their classmates' shoulders are Glen Heston and William Poole.



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.
 A maximum of 125 ads will be accepted for each issue.

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 Laboratories and AEC employees only
6. No commercial ads, please
7. Include name and organization
8. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

**FOR SALE
 MISCELLANEOUS**

WROUGHT IRON fireplace utensil set, stand plus four pieces; lawn mower, push type. Vigil, 296-3590.

BUNDY clarinet, case, & music stand. Patterson, 877-6037.

MALE silver miniature poodle, 6 wks. old, \$25. Myers, 299-2219.

BIKE, girls, coaster brake, 26x-1:75 tires. Hall, 299-3594.

BIKE, mans, 3-speed, \$30; unicycle, \$20; Singer touch & sew model 648, \$225. Gray, 265-1883.

20" BOYS dragster bike & 20" girls bike, chrome fenders, \$20 ea. Martin, 869-2049.

10-spd. BIKE, Nishiki Olympiad, lt. weight, special gears, used week, new cost \$135, sell \$100. Bell, 299-4643.

ROCKWELL-DELTA 6" uniplane (jointer), used only a few hours, 1/2 orig. price \$250. Magnani, 299-8693.

TRAILER & REESE anti sway hitch, 20' self-contained Aristocrat, sleeps 6, AC. Eiffert, 268-4994.

TULSA WINCH, 8000-lb., hydraulic drive, power take-off included, \$175. Flowers, 282-3458.

VOX ELEC. GUITAR w/amplifier, \$200. Lowe, 299-7725.

REVOLVER, cap & ball, w/all acces. & supplies needed to shoot, \$35. Parks, 296-2261.

J.C. HIGGINS Model 50 3006, Belgian action, 4X scope, \$100. Maydew, 294-5663, 7527 La Madera NE.

TALL, rectangular bird cage on floor stand, \$2; Reynolds trumpet w/case, \$65. Mills, 299-2130.

SKI BOOTS, 2 pr., Raichle-Fibre Jet, blue 6 1/2N & red 7XN. Hanna, 299-1126.

'70 VISTA LINER tent trailer, stove, cooler, storage, sleeps 8. Johnson, 296-5957.

STEREO, port. solid-state, 1 yr. old, \$35 or offer; Admiral B&W 16" TV, \$40 or offer. Hart, 266-7118.

GUITAR, elec. bass, \$50; motorcycle helmet, \$10. Hubbard, 299-7818.

TYPEWRITER, Royal port., \$25; bicycle, girls 16", blue-chrome, thorn-proof tubes, training wheels, \$18; rabbits, 4 mos. old, \$1.50 ea. Bassett, 898-1840.

REFRIGERATOR-freezer, 12 cu. ft. refrig. w/6.5 cu. ft. bottom freezer, \$135. Snidow, 298-6163.

SOFA, 90", wingback, \$50; hall runners, multi-color braided cotton, 2'x13', \$20; refrig., Frigidaire, 14 cu. ft., \$50; refrig., GE, 8 cu. ft., \$30. Hughes, 299-6674.

MAPLE finish double bed w/mattress & box springs, \$45. Peabody, 296-6239

CEMENT MIXER, 1/2-hp, 110 VAC motor, 1/8 yd. capacity. Latta, 299-9380.

EXERCYCLE w/speedometer & odometer, \$25. Harrison, 299-7928.

BABY WALKER, \$5; play pen, mesh, \$19; dress form, \$8; Sunbeam hairdryer, \$4; dark brown fall, \$4. Baker, 298-3341 after 5.

GO CART, 4HP, 4-cycle Briggs & Stratton engine, sturdy frame. Kidd, 256-1020 or 265-1622.

MODEL 12 Winchester 12-ga., 30" full & case, \$125; 30-06 Remington, bolt action, 4X scope & case, \$85. O'Bryant, 268-9049.

BIRD DOG, Brittany, reg., 3-yrs. old, female, Treece, 298-8277.

SEWING MACHINE, Singer, zig-zag, port., \$45; Bell Shorty helmet, size 7 1/8, \$10. Byers, 294-0880.

GARAGE DOOR, 7x8', one piece steel w/hardware. Erdman, 298-3097.

244 REMINGTON pump action w/4X scope & fleece-lined case, sell for reasonable offer or swap for Unimat or other hobby-related equip. Jacklin, 298-3046.

243 CAL. SWEDISH Mauser, 7 lb. sporter, 4X scope, very accurate, Roth, 877-4997.

'70 12x70 MOBILE HOME, 2-bdr., 2 bath, furnished or unfurnished, set up & skirted, \$5900. White, 266-4771.

TWO 3/4-size guitars w/cases, \$7 and \$25; enclosed cartop carrier, 48" x 84" x 10" deep, \$25. Coalson, 298-0061.

POODLES: excellent Blue Blood pedigree silver female mini-toys, 10 wks. old, \$75. Feltz, 296-4758.

'71 YAMAHA ATIMX, \$500. Lutheran, 294-3296.

LEICA IIIf, 50mm Elmar, 135mm canon, flash, case, \$200. Hedberg, 299-8850.

LHASA APSO puppies, small Tibetan palace dogs, good personality, AKC reg., extensive championship background, White, 299-6411.

BICYCLE, 3-spd., mens 26", new tires & thorn-proof tubes, \$35. Bland, 298-8459.

25-35 WINCHESTER saddle ring carbine, Roth, 877-4997.

POOL TABLE w/ping pong table, \$149; weight lifting set, \$16;

speaker cabinet, walnut, \$39. Winblad, 344-3109.

ONE-WAY DRAW Kirsch drapery rod, \$5. Kaiser, 296-5215.

USED METAL kitchen cabinets, bathroom fixtures, & 30" elec. stove, best offer. Bennett, 268-3726.

TRAVEL TRAILER, Kenskill 17 1/2', 1963, all accessories, self contained, seldom used. Fugazzi, 299-1279.

RUGER M-77 30-06, Redfield 2X7 Widefield scope, case, sling, ammo, \$179. Stephenson, 299-3914.

CUE, 20 1/4 ounce w/two 14mm shafts, ivory point, cork grip, leather case, \$57. Newquist, 265-8617.

POODLES, extra fine white miniature, champion blood lines, AKC reg., one male, one female, \$100 ea. Pfarner, 298-3206.

GARAGE SALE: cartop carrier, \$15; maple dinette, \$25; dressers, couches, elec. knife, bookcase, toys, etc., Saturday, 6839 Guadalupe, Frauenglass, 344-8344.

TRAILER HITCH, Reese Equalizer w/anti sway system & elec. brake control, \$80. Zanetti, 344-0166.

EICO RP100 3 head tape deck, \$150. Garrison, 256-7267.

SUZUKI 90 trail & street bike, 1971, 2500 miles, \$300; 2 student desks w/chairs, \$10 set. Kepler, 298-5652.

STD. ELEC. range, \$25. Chaves, call between 9-5:30, 242-8637 or 255-6155.

TERRY TRAVEL trailer, 18', fully self-contained, load-levelers, extras, \$2195; K2 comp skis, 204cm, Salomon bindings, \$145; other ski equip. Lassiter, 255-0532.

SLIDE PROJECTOR, Revere auto., new, 500W lamp, \$30; record player GE solid state, stereo, portable, 4-spd., \$35. Kohut, 298-0695.

FLIPPER CAR TOP CAMPER, Nearly new. Bartel, 296-5270.

KAWASAKI 90cc trail motorcycle, bored out to about 105cc, has expansion chamber, extra frame & engine parts, \$150. Garcia, 2726 Santa Clara SE, 266-2254.

FOSTORIA Debutante goblets, \$4; wardrobe, \$25; champagne glasses, 50c, complete 10 gal. aquarium, \$15; ski boots, 9 1/2, Cubco bindings, poles. Barnette, 298-9227.

FANTASTIC GARAGE SALE: thousands of donated items, appliances, furniture, tools, clothing, toys, 3 used cars. All proceeds to Louise Bates Kidney Fund. Oct. 13, 14, 8 a.m. to 6 p.m., 8408 La Camila NE.

HUMIDIFIER for furnace, Sears best w/humidistate, \$20; Blaupunkt radio, AM/FM/SW, 6 or 12V, diagram & parts list, needs work, \$10. Merritt, 299-1482.

3/4 SIZE BABY CRIB & mattress, baby back pack carrier, used once; 2 used 7:75x14 tires. Hall, 298-8617.

SKIS, Blizzard fiberglass, used, 205cm, "Total," 205 cm "Total Racer," & 210 cm "Royal", new \$180-\$250, \$60 to \$85. Stevens, 299-6086.

**FOR SALE
 CARS & TRUCKS**

'70 VW SEDAN, sun roof, customized, chrome wheels, new wide tires, \$300 under top book. Shaffer, 242-6507.

'68 CORVETTE convert, 427. Peralta, 266-4823.

'63 CHEV. 3/4-ton, 4-spd., w/self contained Open Road camper, cab over, \$3600 firm. Harvey, 869-2766.

'72 MUSTANG V8, 9000 miles, AT, AC, AM-FM radio, \$3100. Westbrook, 266-0583 after 5.

'69 DODGE stn. wgn., Monaco, AT, PS, AC, other extras, \$300 below NADA book. Gutscher, 298-7203.

'64 3/4-ton pickup, 45,000 miles, air, w/'66 10 1/2' Open Road camper, monomatic, electric pump, stove, oven, \$2450. Miller, 268-5992.

'64 CORVETTE, 300/327 engine, PS, PB, AM-FM radio, Posi-track rear end, good radials, orig. owner. Campbell, 298-9265 or 266-1892.

'60 RAMBLER wagon, \$250. Lewis, 294-1692.

'64 RAMBLER stn. wgn., 8-seat, reclining seats, AC, 13,000 miles on rebuilt engine, \$370. Laursen, 266-3190.

'61 VW BEETLE, white, \$350. Saxton, 299-8547.

'60 CHEV. stn. wgn., \$225. Timmerman, 298-4587.

'60 CORVAIR, 4-dr., R&H, new brakes, new seat covers; El Camino, 350 engine, R&H, AC, PS, less than 30,000 miles. Yarbrough, 255-4087.

'64 CHEVROLET Biscayne, \$150; lg. go-cart, Briggs & Stratton motor, 4 new tires. Detorie, 299-1868 after 5.

'65 EL CAMINO, 327 V8, AT, AC, PS, PB, studded snow tires, canopy, \$750. Miller, 282-3168.

'62 SCOUT w/winch, \$850. Harlan, 298-9987.

'64 JEEP WAGONEER, 4-wd., R&H. Benedict, 255-6637.

'71 CHEV. Vega stn. wgn., AC, 4-spd., radio, \$1950. Walkington, 268-2600.

'65 MUSTANG & '63 Ford 4-dr. Galaxie, can be 100% financed. Craven, 268-7915.

'67 VW square back, \$100 below blue book at \$950. Lawrence, 296-3058.

'69 MUSTANG Mach I, 351 V8, HD susp., positraction, AT, PS, PB (disk), factory air, tinted glass, fold-down rear seat, green, \$1775. Hawkinson, 282-5239.

'63 DODGE DART, orig. owner, trans., radiator missing, all engine parts good, some new, good body, best offer. Bradley, 296-3305.

'68 DODGE DART GT, V8, AT, bucket seats, \$1295. Adam, 256-7565.

'68 FORD 1/2-ton, short wide bed w/camper shell, low mileage, \$1300. Falacy, 344-9548.

**FOR SALE
 REAL ESTATE**

3-BDR. BRICK HOME, 1 3/4 baths, dining area, FR w/fp, 2-car garage, 5 3/4% loan. Hoover, 298-0134.

2-BDR., lg. kitchen 60x120 lot, garage, hw floor, carpeted, new drapes, NE near Kirtland East. Cox, 255-4753.

3-BDR., 1 3/4 baths, den w/fp, hw floors, finished dbl. garage, landscaping, many extras, conventional 6 1/4% loan. Gluvna, 299-8027.

4-BDR., den, 2 1/2 bath, finished garage, landscaping, fully carpeted, 3 yrs. old, NE Heights. LaBarre, 299-3569.

WANTED

MAN'S ski suit, snomobile suit, or the like, med. or lg. Hansche, 296-1387.

SAILBOAT, fiberglass, 17-21' long w/retractable center-board. Newman, 256-9174 evenings.

AMPLIFIER for elec. guitar. Pier-son, 266-9369.

OLD pickup, any condition, any model. Otero, 294-0060.

6-CYL., straight shift, domestic '64-'67, need clean, mechanically sound car for college student. Marsh, 243-2767.

OLD roller skates for Cub Scout project, singles or pairs, will pick up. Henderson, 256-1355.

SLAB, trim, or trim/slab rock saw, Robertson, 298-2388.

20 GAUGE SHOTGUN, open or improved cylinder, prefer 26" barrel, double or pump. Vine, 256-9378.

LOST AND FOUND

LOST — Key chain w/plastic tag & #8795, shoe buckle, Milovac tape cassette w/microphone & AC adaptor. LOST AND FOUND, Tel. 264-2757, Bldg. 832.

FOUND — Parker pen, cigarette roller. LOST AND FOUND, Tel. 264-2757, Bldg. 832.

Oom-pah-pah, It's Oktoberfest!

TONIGHT at Happy Hour, the Coronado Club's famous chuckwagon roast beef will top the buffet spread while Dave Newcomer and the quartet play a swinging style for dancing. At 9 p.m. Yolanda Adent takes over the main lounge for a sing-along. Next Friday, Oct. 20, Wildman Bob Banks will play for dancing while fried chicken is the buffet feature. On Oct. 27, Happy Hour will have an oriental food buffet and Sol Chavez and the mighty Duke City Brass on the bandstand.

* * * *

TOMORROW NIGHT is Oktoberfest at the Coronado Club. A number of good things will be happening. During cocktail hour from 6:30 to 7:30 p.m., Ted Flowers and violin will entertain. A free beer mug, yours to keep, goes with the first bottle of Lowenbrau. Fantastic German food will be served during dinner and a Kraut band will entertain. Then for dancing from 9 to 1 a.m. Mike Michnovicz and the MBC Trio will play. This great group comes out of retirement by popular demand to play for the Club's Oktoberfest. If you call the Club office right now, tel. 265-6791, and make reservations and pick up your tickets on the way home tonight, you can still make the party.

* * * *

ON SATURDAY, Oct. 21, the Club will offer another Soul Session with the same old successful formula — free admission for members (guests \$1), a great rock band called One Mile Ahead on the bandstand, and Happy Hour prices (cheap) in effect from 8:30 until 12:30. Super sandwiches will be available.

* * * *

SINGLES CHAMP of the Fall Classic Cribbage Tournament held recently at the Coronado Club was Bob Banks (4142). He defeated Ken O'Keefe in a marathon finals match that went the full 10 games. Roger Johnson (7142) came in third. In doubles, Bill Weinbecker (7142) and Wes Pfarner (9211) did not lose a match on their way to the championship. They defeated Andy Anderson (1643) and Luke Stravastnik (1554) for the title.

* * * *

PERIPATETIC Coronado Club members, a plane full of them, leave tomorrow for 16 days in Spain and Portugal. Next week another group is off to Mazatlan, Mexico, for eight days on the beach. In the meantime, there are plenty of spaces still left for the Coronado Club travel package to Rio de Janeiro scheduled Feb. 18-25. Bud Wheeler (3251), travel director, reports that the group is booked into the Nacional Hotel, Rio's newest and finest, with super deluxe accommodations including breakfast and dinner there each day. The package costs \$502 with a \$100 deposit by Nov. 7. Sign up now, Bud says, it's a great vacation buy.

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OBSERVING VETERANS DAY, Monday, Oct. 23, the Coronado Club will be closed.

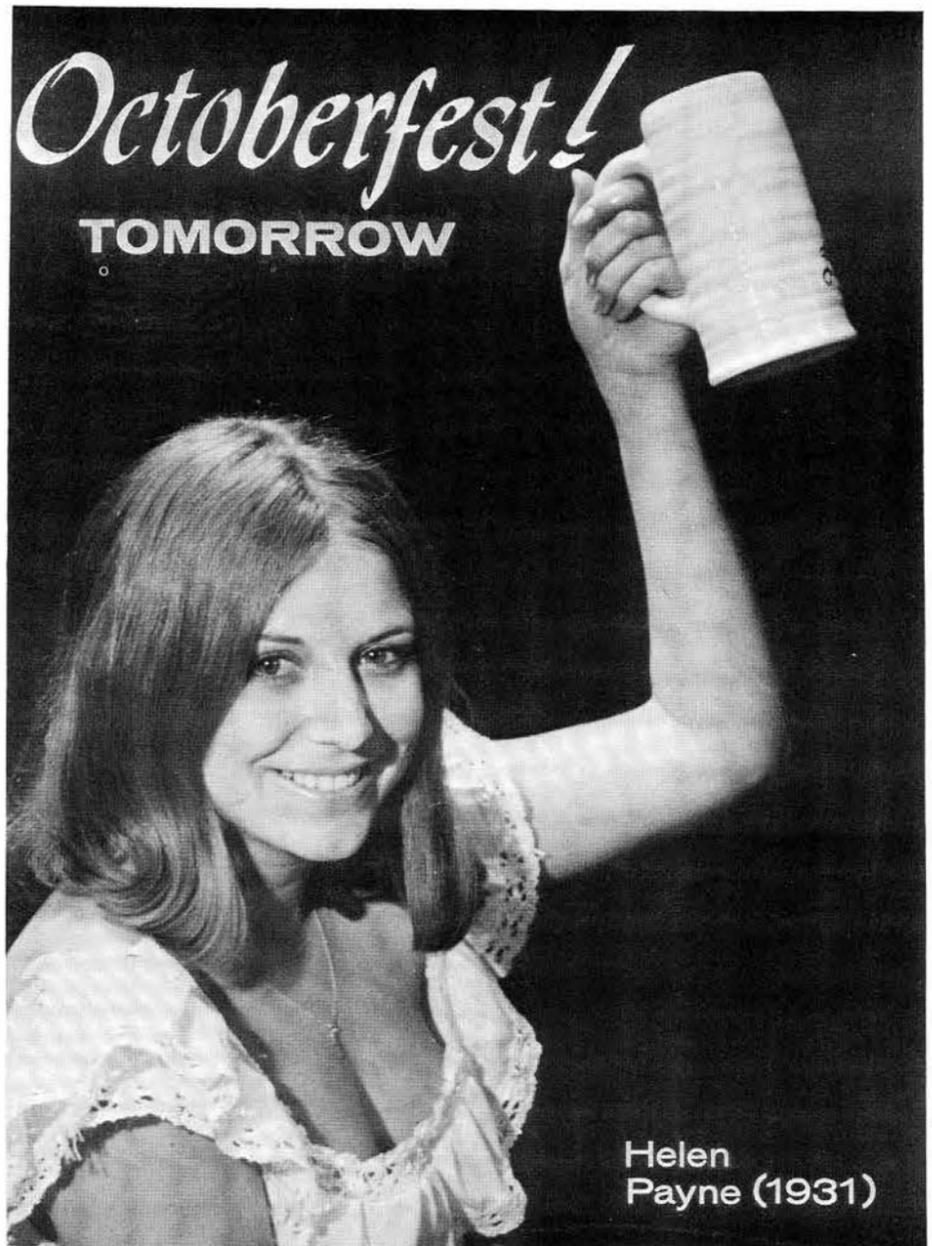
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MARK YOUR CALENDAR now for the Club's New England Seafood dinner scheduled Nov. 11. The Club flies in live Maine lobsters and serves them with the works. A wine taste is part of the evening as well as dancing to the Ken Anderson quartet. Tickets (\$7 for members, \$8 for guests) should be picked up by Nov. 3.

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CASH MONEY (a \$5 bill) goes to somebody who comes up with a fancy name for the Club's basement room B-5, located next to the Eldorado Room. Herb Pitts (100), publicity director, will accept entries. Winner will be announced in mid-November.

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CORONADO SKI CLUB will meet Tuesday, Oct. 17, at 7 p.m. M.A. Guido, Head Ski Co., will discuss "Skis" and a movie "Ski Sense," will be shown. Refreshments will be free and a pair of skis will be given away as a door prize.

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Promotions

Gilbert Apodaca (4514) to Laborer
Tessie Barrett (3148) to Mail Clerk
Clyde Cano (5411) to Computer Facilities Clerk
Jose Castillo (4514) to Auto Serviceman
Adelico Cordova (5415) to Messenger
M.R. Gutierrez (5538) to Staff Assistant Technical
Roy Hart (4515) to Lampman
Christine Imler (8322) to Data Processing Clerk
Ray Larribas (5411) to Computer Facilities Clerk
Ermelindo Marquez (4514) to Auto Mechanic
Rubel Romero (4514) to Laborer
Fermin Nieto (7144) to Cleaner (Development Shops)
Johnny Otero (5411) to Computer Facilities Clerk

Speakers Abroad

G. Yonas (5242), "Acceleration of Charged Particles by Intense Electron Beams," Symposium on Collective Methods of Acceleration, Sept. 27-30, Dubna, USSR.
J.C. Crawford (1410), "A Ferroelectric Piezoelectric Random Access Memory," Atomic Energy Research Establishment, Oct. 12, Harwell, England.
H.D. Sivinski (1740), "The Synergistic Inactivation of Biological Systems by Thermoradiation," International Symposium on Industrial Sterilization, Sept. 26-27, Amsterdam, The Netherlands.
H.D. Sivinski (1740), "Thermoradiation Sterilization," International Symposium for Contamination Control, Oct. 18-20, Zurich, Switzerland.

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