



NOT the Oklahoma Land Rush but one of the wilder events of the Indian Ceremonial in Gallup. Vista New Mexico article on page 6 covers Ceremonial.

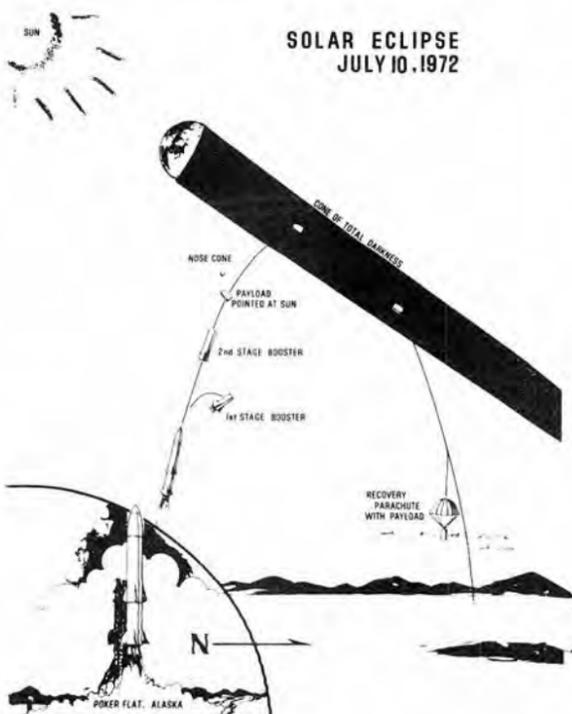
LAB NEWS

VOL. 24, NO. 14

JULY 7, 1972

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

Sandians in Alaska to Fire Rocket Into Eclipse Shadow



ARTIST'S DRAWING shows trajectory, computed by Bill Millard (5624), of eclipse rocket.

A group of Sandians is in Fairbanks, Alaska, this week preparing to fire a rocket into the shadow of a total eclipse of the sun Monday morning. The Terrier-Sandhawk rocket system will carry LASL instrumentation to measure the polarization of zodiacal light in an effort to learn more about interplanetary dust.

Launched from Poker Flat range (30 miles from Fairbanks), the rocket will intercept the eclipse path 186 miles above the earth. The payload instrumentation will separate, aim at the sun, then fall into the total eclipse shadow for some 210 to 220 seconds. During this time, the amount of polarization of the dust will be measured.

The narrow band of the eclipse shadow will first fall on the earth's surface at sunrise near the Soviet island of Sakhalin, pass northeastward across the Bering Strait, over northern Alaska and southeast across Canada and move off the earth at a point in the North Atlantic. LASL's instrumented KC-35 flying laboratory will chase the eclipse making other

scientific measurements.

Zodiacal light is a wedge-shaped diffuse glow usually seen in the west at twilight and in the east before dawn. It is believed to be caused by the reflection of sunlight from small particles in space.

Numerous ground-based observations of the zodiacal light have been made but are difficult to interpret because of the effects of airglow and atmospheric and instrumental light scattering.

By operating above the atmosphere in the total darkness of the eclipse, the detectors on board the rocket payload will be free from these interferences. The payload will descend by parachute and be recovered by helicopter some 160 miles downrange from Poker Flat.

Sandia is providing the rocket system for the experiment, payload attitude control, telemetry, recovery system and on-site support.

Sandia's participation in the project is under the direction of Ed Hansen, supervisor of Experiments Projects Division II 9223, and Ted Krein (9223), systems engineer for the project. • dg

Afterthoughts

But Some Of My Best Friends Are Children--Periodically LAB NEWS gets a call like this: "Hey this is a friend of Charley Smakenfelter and did you know his 3-year-old Wolfgang got the Rhodes Scholarship and has been selected for the next moon shot and when are you gonna take Wolfgang's picture and put him on the front page?" Answer: hardly ever. We like kids and pictures of kids, especially the little ones, are surefire, just like comics. But according to our calculations the Sandia population has 8119.652 of 'em, and we have just so much space. So no kid stuff... Sorry.

* * *

Baseball Freak Alleges Foul--In the last issue, we included a well-reasoned, incisive, and definitive analysis of the game of baseball. One unbiased observer said "Right on!" But you always hear from the kooks too:

"Dear Editor:

Well now, John, you've gone TOO FAR! You have really struck a nerve this time, and I can't let it pass without comment.

First it was that master of the innuendo, Ralph Nader, exploding my faith in the perfection of GM's engineering and the purity of its management. Then the Sherlock Holmes of the Military - Industrial Complex, Daniel Ellsberg, spotlights my misplaced allegiance in our country's leadership. Following this, the Berrigan brothers perforate my image of the friendly neighborhood priest that Pat O'Brien worked so hard to project. Next, the original undercover agent, Jack Anderson, tells me that my country "tilted" in favor of Pakistan in that perpetual pinball machine conflict in Asia. Through all of that my rock and my salvation was the innocence and virtue of America's national pasttime.

And now you come along and tell be that baseball is synonymous with "A Clockwork Orange;" that Charlie Finley didn't give Vida Blue all that money because he's running a business, and that Babe Ruth and Mickey Mantle are not really athletes but athletic supporters!

You have destroyed my last handhold on any semblance of life as I knew it. Before I am inundated with any more of your revelations, consider this a HATE letter and cancel my subscription to your iconoclastic tabloid.

Mike Rex
(4151)"

* * *

Goethe on Youth--"The destiny of any nation, at any given time, depends on the opinions of its young men under twenty-five." *js

ALO Deputy Manager Named



Herman Roser, Assistant Director of the Division of Military Application at AEC Headquarters, Washington, D.C., has been appointed Deputy Manager of the Albuquerque Operations Office, effective Sept. 1. He succeeds James

McCraw who retired June 30.

Mr. Roser joined the AEC at Los Alamos in 1961. He served as Assistant Area Manager for Community Affairs, as Deputy Area Manager, and in February 1967 was named Area Manager. He assumed his present Headquarters assignment in November 1968. Before joining AEC, Mr. Roser was with the Zia Company in Los Alamos and had previously worked in several government agencies, including the Office of War Assets Administration in Albuquerque.

Mr. and Mrs. Roser are native New Mexicans. They have two daughters — one married and living in Albuquerque and the other a student at UNM.

Lloyd Wilson Addresses Custodian Workshop Group



Lloyd Wilson, supervisor of Custodial Division 4515, was guest lecturer at the 15th Annual Custodian Workshop, held at Ft. Wingate, June 21-23. The workshop, conducted for custodians and supervisors, was co-sponsored by the University of New Mexico — Gallup Branch, and the Bureau of Indian Affairs — Navajo Area.

Lloyd made the keynote address — "I Gotta Be Me" — and spoke to the entire group on "How to Clean and Maintain Restrooms." During the program for supervisors he talked on "Training Techniques" and was a panelist for the discussion following the program.

Lloyd joined the Laboratories in 1949 and worked for eight years on assignment at Salton Sea Base in California. He returned to Albuquerque and his present position in 1957. He is a member of the Institute of Sanitation Management of Clearwater, Fla.

Sympathy

To Willis Smith (5113) on the death of his father, June 26.

To Dick Prairie on the death of his father-in-law, June 29.

CU Bulletin Board

From IRS comes this information of interest to Sandia boat owners:

Q) Is there some way I can get a credit for gasoline I use in my boat?

A) Yes. You can claim a credit against your income tax liability for a portion of the Federal tax on gasoline and lubricating oil you use for nonhighway purposes (in a boat, lawn mower, power saw, generator, etc.). The credit is two cents a gallon for the gasoline used and six cents a gallon for the lubricating oil. You claim the credit by filing Form 4136 with your Form 1040 for the year.

LAB NEWS

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bruce hawkinson writes
as does norma taylor while
bill lasker takes/makes pictures
&

in livermore lorena schneider does all



PRESCILLA TORRES (3521) displays the new SLA vehicle registration decal. Yours will have a serial number beneath the Thunderbird. New decals should be installed by Aug. 1.

Take Note

Tom Cook (8000) was guest speaker at a recent meeting of the Rotary Club in Livermore. He discussed Sandia's Plans and Objectives and the New United States/Russia Arms Limitation Treaty. Following the discussion, the Sandia film, "Spinoff," was shown.

* * * *

Cliff Skoog of Instrumentation Development Division 8342 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 a six-year period. Cliff previously received his AA degree in electronics from Oregon Technical Institute in 1961, following which he joined Sandia. He has worked primarily in transducer systems development.



ARMY Major General Frank Camm (left) is the recently-appointed DMA head, and he visited Sandia-Albuquerque recently for briefings. VP Tom Cook (8000) made one of the presentations to the General.

LIVERMORE NEWS

VOL. 24, NO. 14

LIVERMORE LABORATORIES

JULY 7, 1972



CLIFFORD O. ERICKSON MEMORIAL GOLF TOURNEY — Larry Brown (8333) won first place trophy in the golf tournament established by Livermore's drafting organization as an annual event in memory of drafting section supervisor Cliff Erickson. Cliff's daughter Jan, a Livermore High School student employed in Section 8161-1 under Sandia's Work Education Experience Program, shows Larry where his name has been engraved on the plaque now on display in Building 912. Twenty-four draftsmen participated in the tournament.

Authors

Jack Dini, Rudy Johnson and Dez Brown (all 8312), "Some Ways to Eliminate Skip Plating When Using Copper Pyrophosphate Solutions," PHOTOCHEMICAL MACHINING — PHOTOCHEMICAL ETCHING, March-April issue.

Jim Shelby (8331), "Helium Migration in Glass-Forming Oxides," JOURNAL OF APPLIED PHYSICS, July issue.

LAB NEWS
PAGE THREE
JULY 7, 1972



Death

Paul Freeman of Electronic Fabrication Section 8421-3 died suddenly June 15. He was 35.

He had worked as an electronic technician at Sandia/Livermore for the past 11 years.

Survivors include his widow, a son, a daughter, and parents. His father, Ralph Freeman, retired from Sandia last year.



Congratulations

Mr. and Mrs. Dave Havlik (8153), a son, Andrew Michael, May 12.

Sympathy

To Charley Crawford (8432) for the death of his daughter in Livermore, June 17.

To Walt Dzugan (8212) for the death of his father in Pittsburg, Pa., June 10.



NEW AMADOR/LIVERMORE VALLEY HISTORICAL SOCIETY PRESIDENT Bill Jamieson (8235) takes over duties for the upcoming year at a recent dinner meeting. Other Sandians serving the society this year in various capacities include Ferne Graves (8433), vice president; Lee Graves (8423), board of directors; and Elliott Dopking (8231), events record chairman.



INSTEAD of all those tedious garage sales you've been holding to get rid of the junk, why not take it to the Base Thrift Shop? They'll sell it for a 20% commission. Shop is run by volunteers (and more are needed) and proceeds go to charitable causes. It's located just south of the Bank of New Mexico. Drop in during lunch, MWF, and pick up one of the bargains — there's a little of everything on sale.

Events Calendar

July 7, 15 — Santa Fe Opera, "La Grande-Duchesse de Gerolstein," 9 p.m. Call KHFM, 256-9001 for ticket information.
 July 7-9, 13-15 — Corrales Adobe Theatre, "Home," 8 p.m. For reservations, 898-3323.
 July 8, 14 — Santa Fe Opera, "Madame Butterfly," 9 p.m.
 July 9 — N.M. Mt. Club, Del Agua Overlook (Sandias), Western Skies, 9 a.m.
 July 9, 16 — Potts Puppets, Old Town Studio, 2 p.m. For reservations, 243-7186.
 July 10 — Lecture Under The Stars — Dr. Yosef H. Yerushalmi, professor of Hebrew and Jewish history, Harvard Univ., and visiting UNM professor, "Synagogue and

Mosque: The Historical Relations Between Jews and Arabs, Judaism and Islam." North Mall, UNM, 8 p.m.
 July 12-16 — Albuquerque Civic Light Opera, "Once Upon A Mattress," Popejoy Hall, 8 p.m. For reservations, 277-3121.
 July 13 — Lecture Under The Stars — Dr. Douglas Ferraro and Dr. Samuel Roll, psychology professors at UNM, "Drug Use and Misuse: Chemical, Social, and Psychological Implications," North Mall, UNM, 8 p.m.
 July 14 — Free Film Festival Under The Stars, North Mall, UNM, 8 p.m.
 July 15 — N.M. Mt. Club, Santa Fe Baldy, Gulf Mart, 7 a.m.

Final Tabulations

Package on Sandias to Forest Service

The U.S. Forest Service has received a package containing reactions of Sandians to its Land Use Plan for the Sandia Mountains. As the article in the last LAB NEWS indicated, Sandians lean (figuratively) toward wilderness: 52 percent favor alternative A versus 16 percent for each of the other three

alternatives.

Final tabulations, based on 131 respondents, are shown in the chart. The asterisk indicates the preferred alternative for each management unit; the percentage choosing it is shown in the right-hand column.

ALTERNATIVES BY MANAGEMENT UNIT					
MGMT. UNIT	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	%
1 BERNALILLO WATERSHED	Woodland Zone; Ext. Rec. Continuation of existing management		Woodland Zone; Int. Rec. with interpretive program on grass & woodland ecology	Woodland Zone; Ext. Rec.* Continuation of existing management	71%
2 JUAN TABO	Woodland Zone with Travel Influence; remove Juan Tabo picnic facilities		Woodland Zone with Travel Influence; Int. & Ext. Rec. (upgrade present sites); add signs & trails	Woodland Zone with Travel Influence; Int. & Ext. Rec. (upgrade present sites)	62%
3 CIENEGA		Woodland Zone with Travel Influence (Water Influence along Cienega Creek); up- grade Int. Rec. sites			
4 LAS HUERTAS		Woodland Zone with Water Influ. along Las H. Creek; Close Hiway 44; provide trail access (Ext. Rec.)		Woodland Zone with Water Influ. along Las H. Creek; Int. Rec.; widen and pave Hiway 44 through canyon	53%
5 PALOMAS	Woodland Zone; Ext. Rec.*	Woodland Zone; Ext. Rec.; proceed with Sandia Crest Hiway	Woodland Zone; Ext. Rec.; construct Palomas Peak Hiway paralleling Las Huertas canyon	Woodland Zone; Ext. Rec.*	73%
6 SANDIA FRONT	Wilderness Study Area (acquire private land)	Woodland & Intermediate Zones with Travel Influ.; Ext. Rec.; cont. of exist. mgmt. (acquire private land)	Scenic area; Ext. Rec. (acquire private land)	Woodland & Intermediate Zones with Travel Influ.; Ext. Rec.; cont. of exist. mgmt. (acquire private land)	65%
7 OSHA	Wilderness Study Area on roadless portion; remainder Intermediate Zone; no tim- ber cutting; no Crest Hiway	Intermediate Zone; Int. Rec. Complete Crest Hiway with observation site in Canon del Agua; timber cutting OK	Intermediate Zone; Ext. Rec. Use Crest Hiway clearing for wildlife & snow rec.; timber cutting OK		74%
8 CAPULIN	Intermediate Zone with Travel Influence; upgrade present sites; reconstruct Hiway 536		Intermediate Zone with Travel Influence; realign Hiway 536; add Int. Rec. (esp. snow) sites		55%
9 LA MADERA	Intermediate Zone; Ext. Rec. build new trail	Intermediate Zone; Ext. Rec. enhance turkey habitat		Intermediate Zone; Ext. Rec. build new trail	53%
10 CANONCITO	Wilderness Study Area		Intermediate Zone; Ext. Rec. timber cutting OK		78%
SUMMARY	30,000 acres in Wilderness Study Area; emphasis on Ext. Rec. & natural beauty. Existing areas (except Juan Tabo) upgraded. Close Hiway 44 in Las Huertas canyon	Emphasis on development of most resources; complete Crest Hiway for more scenic views & driving demands; Int. Rec. in 2, 3, 7, & 8. Close Hiway 44 in Las H.	Emphasis on development of most resources; construct Palomas Peak Hiway, not Crest Hiway; otherwise similar to Alternative B	Additional Int. and Ext. Rec. areas; pave Hiway 44 in Las Huertas Canyon	
TOTAL	52%	16%	16%	16%	

Take Note

Charles Arning (7614) and Carl Scheiber (9310) recently completed an intensive one-week encampment at Philmont Scout Ranch as part of the requirements for earning the highest honor in scouting — the Wood Badge, sometimes called "the PhD of scouting." Instructor was Glenn Gowler (9000), president of Boy Scout Region IV. His staff included Harry Warrick (9342) and Walt Scott, recently retired Sandian.

* * * *

A group of concerned Sandians have organized the "Pennsylvania Flood Relief Fund." Contributions will be accepted up to July 17 and are deductible on your federal income tax because they will be forwarded by the Fund to a recognized charity. Make checks payable to: Pennsylvania Flood Relief Fund, and send them to Bob Holloway (7615), Bldg. 894. Any of the following Sandians can supply additional information: John Sarkis (7613), Dale Leonard (7614), Dale Shenk (7612), Karl Wiegandt (7611), Jack Bartberger (7651), Don Keener (7652) and Tom Philbin (7614).

* * * *

A dark brown Olds Cutlass was involved in a minor accident with two girl pedestrians at the intersection of Main and B Streets on the afternoon of June 20, and the driver — who may be a Sandian — is asked to call SSGT Simonson on ext. 5421 in order to complete documentation of the accident.

* * * *

Darrell Munson (5163) will discuss "Analysis of the Dynamic Response of Quartz Phenolic (Code Modeling of Laboratory and NTS Data)" at a meeting of the 5100 Staff Seminar Tuesday, July 11, at 8:30 a.m. in Rm. 201, Bldg. 836.

Variable Annuity Unit Value

July..... 1.792
 June 1.763
 Average 1971..... 1.629

A Good Deal: Meals on Wheels

Retired Sandians have a reputation for their involvement in the community. A program that began last January now needs volunteers, and it presents an opportunity for Sandia's retirees to spend a small amount of time in a constructive community service.

In the "Meals on Wheels" program, volunteers deliver meals to elderly, handicapped, or convalescent persons who are unable to prepare their food or who have no one to do it for them. Nutritious, balanced meals, including special diets, are prepared in the kitchen of Anna Kaseman Hospital. Two meals a day are furnished — one hot and one cold — for each client. The meals are delivered five days a week at a moderate cost; food stamps are acceptable, and in case of extreme need, financial help may be secured through the Emergency Food and Medical Service. Any resident of the city is eligible for the meal service.

Volunteers are needed to make deliveries, working in teams of two, one day a week, for about two hours a day. Chairmen of the Day are also needed to supervise pickup of meals by drivers, working one day every two weeks for about two hours. Assistants are needed to pack the food in thermal chests and to place the chests at drivers' stations at the hospital. And more help is needed for clerical and public relations work.

Several retired Sandians are working with the group: Hap Kindschi and his wife give their time as a Driver (what else?) and Friendly Visitor team. "It's a great experience," Hap says. "These people are so appreciative. My route is about a 40-mile trip, serving up to 10 people. I still have lots of time to go fishing." Ruth Jensen donates her time as a Chairman of the Day. "This is a fine way to make new friends and to renew friendships. The first day I came to the hospital, I found I was working with four former Sandians," she says. "This type of volunteer work is really fun and very satisfying." Other Sandians giving valuable assistance are Hildegard Fink, Hazel Smeltzer, Geneva Howell and Harriet Evans.

The organization is now servicing some 50 clients a day and hopes to expand the operation by including hospitals in other areas of



MEALS ON WHEELS VOLUNTEERS — Ruth Jensen (center) explains new route to Hap and Mrs. Kindschi, before they load containers of food for delivery to elderly, handicapped and convalescent persons. Hap and Ruth both retired from Sandia in the last year or so, and many other Sandia retirees are active in the program.

the city. Operating funds come from private individuals and from organizations within the community. Initial planning of the program was begun by the Immanuel United Presbyterian Church and the non-profit organization is endorsed by the Albuquerque Division of the New Mexico Interchurch Agency. Clients are referred by churches and other agencies, doctors, ministers and individuals.

Offers of financial aid or volunteer service should be made to: Meals on Wheels, Immanuel United Presbyterian Church, Carlisle and Silver Avenues, Albuquerque 87106; or for more information call 255-1428. • nt



THIS raunchy little creature was hatched on the window sill of VP Charley Campbell's office. Mother had a little navigation problem and really was aiming at President Hornbeck's office, just down the hall. The reason? Well, a noted ornithologist has identified its species: thunderbird, of course.

Courts, Tennis, Use of

How About That Sports Fans . . .

Lots of Labs people use the Base tennis courts, which probably accounts for recurring reports of friction arising from encounters over who gets to use a court when many people are waiting. Well gather 'round boys, girls and others because you're about to be reminded that this is a Military Base. We've received this pronouncement from Base authorities on the subject:

USE OF TENNIS COURTS:

1. Due to excessive demands for the use of tennis courts during the summer months, the following policy will be effective 15 June 1972.

2. Tennis Courts will be utilized on a first-come, first-serve basis in accordance with the following priorities:

- Active duty military personnel.
- Retired military personnel.
- Dependents of active duty military personnel.
- Dependents of retired military personnel.
- Civilian personnel assigned to Kirtland AFB.

3. **PRE-EMPTY PROCEDURES:** Courts can only be pre-empted by a higher priority group (2 or 4 persons) *on the hour up to five minutes after the hour* (i.e., if a group of civilian personnel are occupying a court at 0815, the higher priority group can demand use of that court at 0900 to 0905 if there are no other courts available in that tennis court area; the civilian group will relinquish the court). Should the lower priority group refuse to relinquish the court, they will be reported to the Sports Department at Kirtland East Gym (264-1025/1413) or to the Chief, Special Services, Lt Colonel Baca (266-1771) during non-duty hours for necessary action.

4. Only one member of a higher priority group (2 or 4 persons) will be needed to qualify for this pre-emptive right.

5. The eligibility for civilian personnel assigned to KAFB to use the tennis courts on a space available basis will continue in force until further notice; however, this privilege may be withdrawn at a future date if the demand for courts by active duty and retired military personnel should warrant such action.

Anyone for, uh, horseshoes?

Speakers

W.D. Brown (1715), "Backscattering in Potential Theory," APS Meeting, Feb. 14, Albuquerque; and "A Comparison of Some Methods for Calculating the Scattering by Two Potentials," APS Meeting, Feb. 1, Washington, D.C.

W.E. Warren (1721), "Interaction of Dislocation With Internal Voids and Cracks," 6th Southeastern Conference on Theoretical and Applied Mechanics, Univ. of Southern Florida, March 24, Tampa; and "Geometrical Stress Singularities in Linear Theory of Electrostriction," Mechanical and Graduate Seminar, April 18, NMSU.



OUT OF THE ASHES OF THE OLD rises a new home for Pat Garcia (4611) and his family in Tijeras Canyon. After the old house burned last winter, Sandians contributed food, clothes, and, best of all, building supplies and labor. It won't be long now till the roof is on. Thanks, Sandians, from Pat.

Vista NEW MEXICO

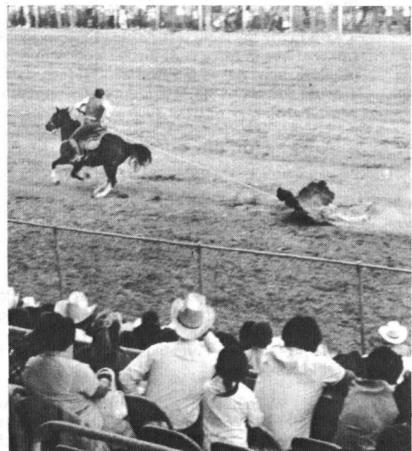
"Just One More Time" — The Indian Ceremonial in Gallup

Last year, after residence in New Mexico for many years, we finally made it to the Inter-Tribal Indian Ceremonial in Gallup. After all, it was going to be the last one, which made it sort of historic. Well, we've just gotten a news release from Gallup which starts out "Thanks to one final delay of construction plans . . . the annual Inter-Tribal Indian Ceremonial will hold its famed exposition just one more time . . ." No matter. If you haven't gone to the Ceremonial — you should. If you've gone before, you probably have some strong opinions about the Ceremonial.

I do, I think it's glorious, sad, exuberant, tawdry, amusing, irritating, not really commercialized, and a nice antidote to Disneyland. Most of all it is spectacle —

- * the morning parade, Indians of many tribes in panoply, many horses, marching bands (there's something incongruous about an Indian clarinetist), and the faces - really great faces - *those of the young smiling and enjoying the holiday* and those of the old, lined, dignified, set. A little of show biz intrudes into the parade, fortunately very little. It remains a non-slick production, and I found it most affecting.
- * the dissident Indians, usually young males whose hair and dress reflect not the reservation but the campus, handing out shrill, badly written protests of the Ceremonial. They may have a case, but they need an editor.
- * a sort of shantytown fairgrounds outside the arena, where you can get a little of everything — nutty buddies, paper novelties, fried Indian bread, some first class Indian jewelry, even a swig of wine.
- * the Exhibit Hall, something like the Indian Building at the State Fair, lots of jewelry, rugs, baskets and pottery. I especially liked the live demonstration of sandpainting, and no one seemed to mind picture taking.

Then there are the events at the arena. The



IF you look closely you'll see a small Indian boy clutching the buffalo hide in this race around the arena.



THESE are Zunis in morning parade. Note variety of squash blossom necklaces. Pot markings are usually distinctive according to Indian group.

format of the Ceremonial consists of the ten o'clock parade in the morning (on Friday, Saturday and Sunday, but not on Thursday), followed by the two o'clock arena performance of what the program lists as "Indian sports, athletics, and rodeo," followed by the evening (8:30) arena performance of Indian dances. Except on Sunday, when the afternoon and evening events are combined in one afternoon performance. I'm inclined to recommend seeing the dances at night because their drama is heightened by the light of bonfires set in the middle of the arena. Taking pictures under such conditions is a little tough though.

The "Indian sports, athletics, and rodeo" turn out to be a little wild. One of the first events is the wagon race: stripped-down farm wagons hitched to two horses making circuits of the arena with standing drivers lashing their teams on a la Ben Hur. It's what promotional literature calls "action filled." In another contest, a group of frantic cows straight off the range is turned loose and chased by a group of equally frantic Indian cowboys, each bearing a one quart milk bottle. He who first succeeds in getting a perceptible amount of milk from a cow into his bottle wins. I forget what the prize was but it should include a free visit to the dentist.

A more placid but still engaging event was the sheep dog contest. I had never seen these remarkable animals do their thing — in this event rounding up and herding a group of sheep into a corral. The dogs' owners were all Anglos and I haven't figured out yet what they have to do with an Indian Ceremonial, but it was still sort of interesting.

They do a couple of things with a buffalo. There's a real, live specimen that looks about eight feet tall that's used for macho trips by some of the more resolute — they try to ride the thing. Time aboard is brief and invigorating. I'm surprised the species declined. Later, a buffalo hide is dragged behind a horse in a race around the arena. The hide has a passenger, a small Indian boy who hangs on for dear life in what must be a modern rite of passage.

And there's a pretty good rodeo too as well as other events. The Ceremonial must be on the rodeo tour because most of the entrants had names like Billy Jo Custer from Sweetwater, Texas, and they certainly weren't Indians.

* * *

Logistics — You can do the Ceremonial in

a day, as we did, although it's a little ex-cruciating. And I most assuredly would not drive. We took a Grey Lines bus, leaving at 6:00 a.m., that delivered us to the center of town in time for the parade. We reboarded the bus after the parade for a KFC box lunch, and our driver then delivered us to the arena grounds where he parked. You can leave stuff in the bus and, since weather can turn cool or rainy, it's advisable to take some extra clothing. Following the afternoon performance, we returned to the bus, broke out the martinis from our cooler, and later walked into town for dinner. The dances start at 8:30, and I seem to recall that we finally cleared the parking lot about midnight, which put the bus back in Albuquerque at some frightful hour. A long day. Incidentally, the bus/lunch/arena package is \$22.

If you have a camper, your schedule can be less rigorous, but how you actually get into Gallup during the periods of interest, and park, poses a problem of magnitude. Traffic is awful and the local constabulary is unequal to it.

I have written for a supply of Ceremonial folders and they will be available in Lab News office if you are interested. The folder contains detailed information about the schedule of events and ticket prices. • js



NOT exactly Howard Johnson's, but the menu offers stew, corn on the cob and french fries. And coffee for a dime and no headwaiter. Cedar boughs lend nice touch.



SANDPAINTING is a form of religious expression among Navajos.



BAREBACK on a buffalo has to be the ultimate in high resolve. Extended ride lasted about two or three milliseconds.

Authors

R.E. Auer (5233), "A Data Acquisition System With Isolated Output Voltage for Acquiring Events-Versus-Voltage Spectra," Vol. 43, No. 4, THE REVIEW OF SCIENTIFIC INSTRUMENTS.

M.A. Gusinow (5215) and R.A. Gerber (5243), "Space-Charge-Controlled Diffusion in an Afterglow," Vol. 5, No. 4, PHYSICAL REVIEW A.

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R.J. Baughman (5154), "Preparation and Single Crystal Growth of PtGa₂ and AuX₂ Compounds," Vol. 7, No. 6, MATERIALS RESEARCH BULLETIN.

G.H. Haertling (1335) and C.B. McCampbell (1310), "A New Longitudinal Display Mode for Ceramic Electrooptic Devices," Vol. 60, No. 4, Proceedings of the IEEE, OPTICS AND QUANTUM ELECTRONICS.

R.E. Luna and H.W. Church (both 5644), "Conference Summary, Symposium on Air Pollution, Turbulence and Diffusion," Vol. 53, No. 3, BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY.

L.E. Fuller (3110), "Designing Compensation Programs for Scientists and Professionals in Business," HANDBOOK OF WAGE AND SALARY ADMINISTRATION, McGraw-Hill, Inc., New York, 1972, p. 8-24 through 8-35.

G.W. Kuswa (5243), "Simultaneous Recording of Several Light Pulses," Vol. 11, No. 4, APPLIED OPTICS.

B. Morosin and R.W. Lynch (both 5152), "Structure Studies on Al₂TiO₅ at Room Temperature and at 600°C," Vol. B28, Part 4, ACTA CRYSTALLOGRAPHICA.

A.W. Johnson and J.B. Gerardo (both 5243), "Dissociative Recombination of Electrons with He⁺," Vol. 28, No. 17, PHYSICAL REVIEW LETTERS.

J.E. Schirber (5150), "Pressure Induced Electron Transition in AuGa₂," Vol. 28, No. 17, PHYSICAL REVIEW LETTERS.

W.E. Wilson (1433), "A One Kilowatt Microstripline TRAPATT Oscillator," Vol. 8, No. 7, ELECTRONICS LETTERS.

E.J. McGuire (5234), "Systematics of Electron, Proton and Photon Ionization Cross Sections," Vol. 32, C4-37 (1971), and "K and L Shell Fluorescence and Auger Yields and Auger Electron Spectroscopy," Vol. 32, C4-124 (1971), SUPPLEMENT AU JOURNAL DE PHYSIQUE.

R. Trujillo (1742) and Tom David (UNM), "The Sporadic and Sporocidal Properties of Aqueous Formaldehyde," Vol. 23, No. 3, APPLIED MICROBIOLOGY; Trujillo and V.I. Dugan (1734), "Synergistic Inactivation of Viruses by Heat and Ionizing Radiation," Vol. 12, pp. 92-113, BIOPHYSICAL JOURNAL.

Water Safety Reminder

Wear a Life Jacket

Brothers Jimmie (4513) and Conrad (7121) Otero and Jimmie's six-year-old-son Matthew came through a recent boating mishap on Bluewater Lake feeling just "plain lucky."

They were paddling a 300-400 pound steel pontoon, supported on each side by a 50-gallon tank. "We didn't have life jackets; the pontoon looked safe and I didn't think anything could tip it over," Jimmie says. But, a combination of the rudder catching on a buoy cable, high winds and large waves did turn it completely over, in very deep water. Conrad was able to catch hold of Matthew and put him up on the overturned craft, and then he and Jimmie held on. People on shore saw their difficulty and they were picked up by boat in about 15 minutes.

"We really were lucky," Jimmie says, "and I'll never go on the water again without a life jacket." Amen.



NEW MEXICO Civil Air Patrol recently conducted a one-week training program for some 40 cadets from throughout the state. Visiting Sandia's Exhibit Center was part of the program. From left are Dick Damerow (1442), New Mexico CAP wing commander; Paul Carroll, project officer; Beverly Vito, a CAP cadet colonel; and Len Beavis (1413), director of the cadet training program.

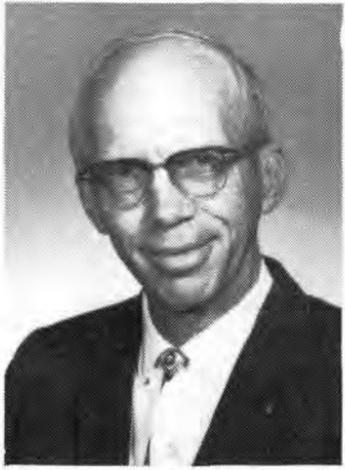


A NEW LAWYER, John Kaufmann, has arrived at the Labs to take the place of Ed Lenard, who has returned to WE in New York. John has been with WE for some 10 years, has an EE degree out of Marquette, and did his law work at Georgetown Univ. He and his wife Ellen have one daughter, age two, and reside in a place called 4-Hills. John is a runner, does several miles each day.

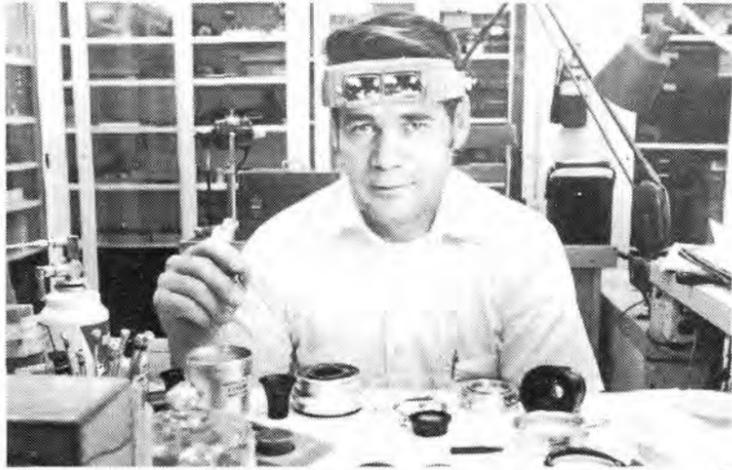


SHARLA VANDEVENDER (1753), a principal of the Sandia Bicycle Association holds aloft a new map endorsed by SBA. The "Bicycle Map of Albuquerque — A network of streets for getting from place to place through-out the city" red-lines streets likely to be less lethal for cyclists. Cost is 65 cents and proceeds go to SBA. Copies are available in LAB NEWS office and from SBA committee members.





Frank Norris — 4551 15



Orval Talley — 7131 15

MILEPOSTS

LAB NEWS

July 1972



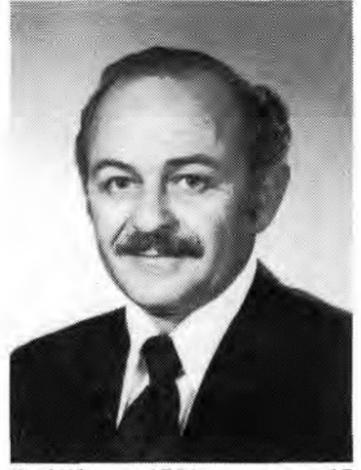
William Hale — 9421 10



Bill Barton — 5624 20



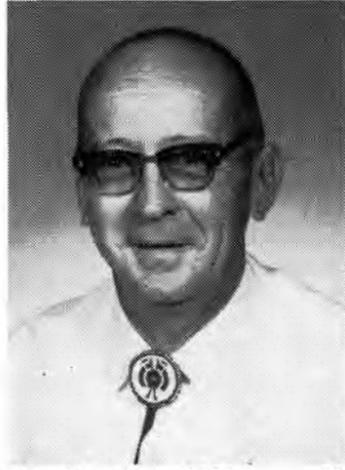
Charles Hills — 5522 10



R. J. Hart — 1531 15



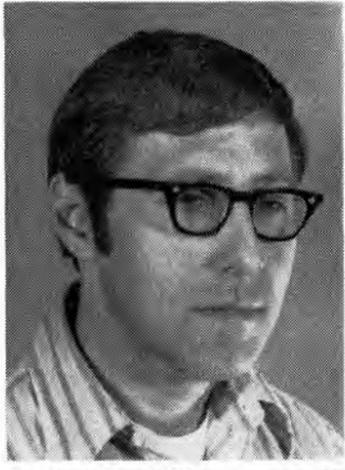
George Dyckes — 7434 15



Russell Leahy — 4622 20



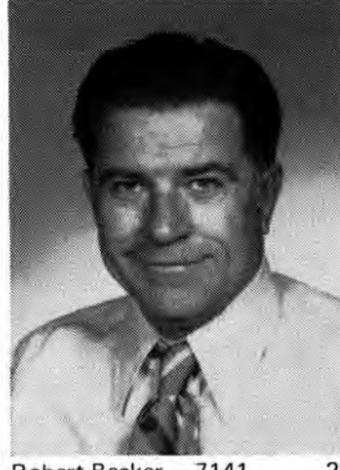
Betty Lou Gatto — 3242 15



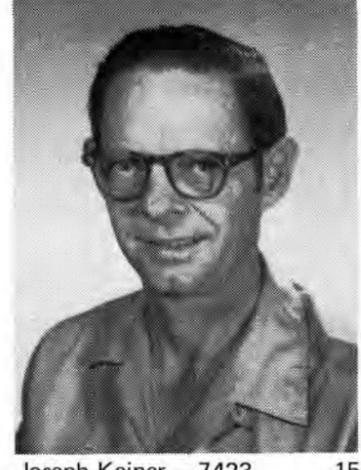
Gerald Lis — 7431 10



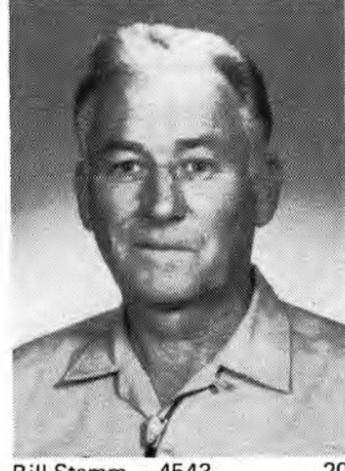
Irene Mesecher — 3151 15



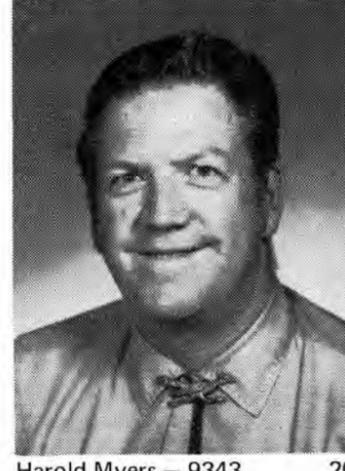
Robert Becker — 7141 25



Joseph Keiner — 7423 15



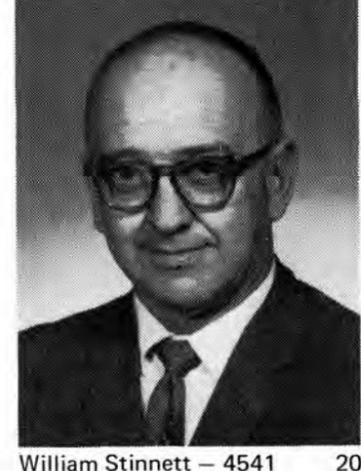
Bill Stamm — 4543 20



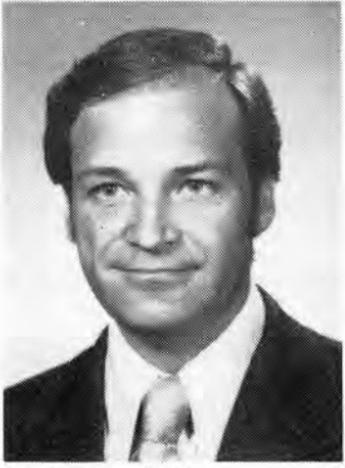
Harold Myers — 9343 20



Tom Evans — 1814 10



William Stinnett — 4541 20



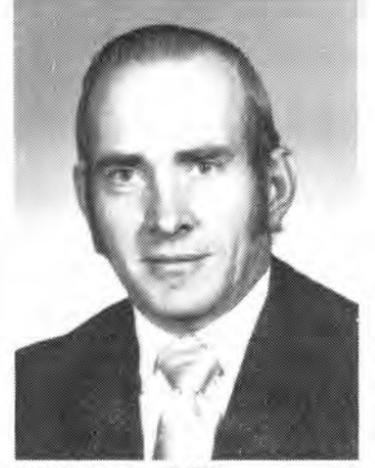
Don Bates — 5411 10



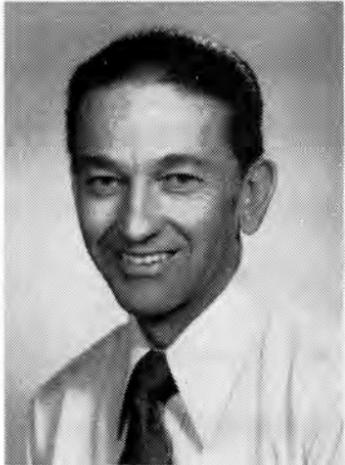
Joseph Browning — 1611 15



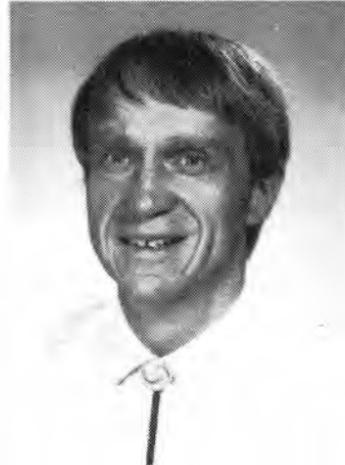
Don Hurt — 1613 15



Al Winblad — 1753 20



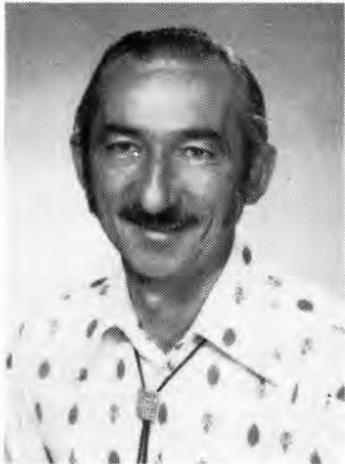
Neal Branson — 7623 20



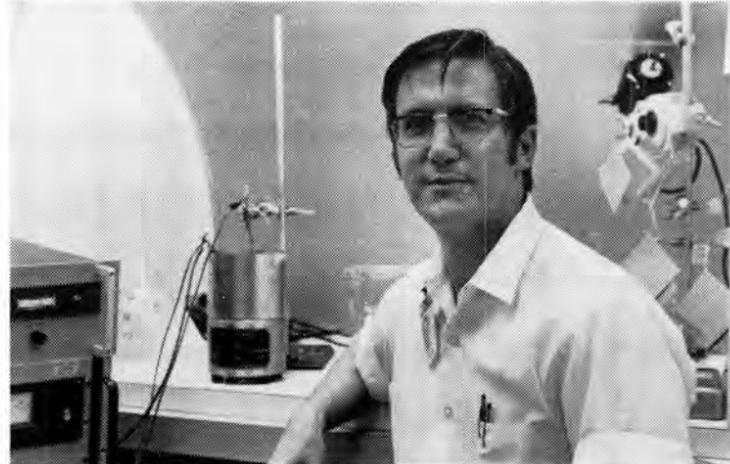
Joe Taylor — 7425 15



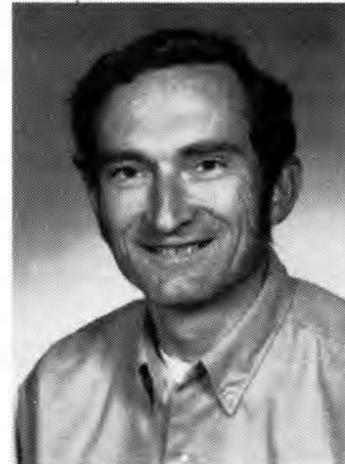
Ken Butler — 7141 15



Ben Petterson — 1212 20



Larry Stephenson — 5531 10



David Morrison — 1821 15



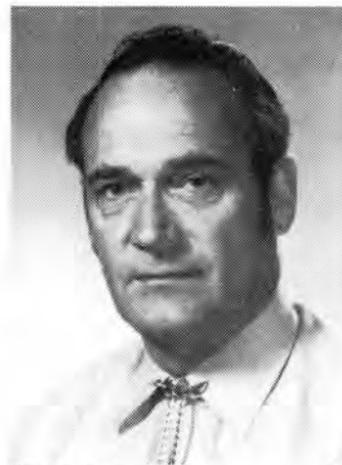
Don Bertholomey — 4116 10



Pat DiDomenico — 4154 20



Frank Muller — 7425 15



Ray Hinds — 1811 15



Paul Longmire — 1517 10



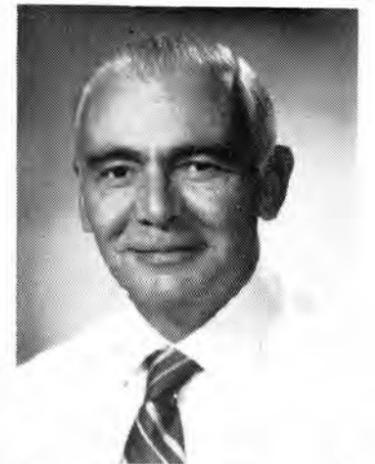
Arlene McCarty — 4331 15



Neal Vinson — 1613 20



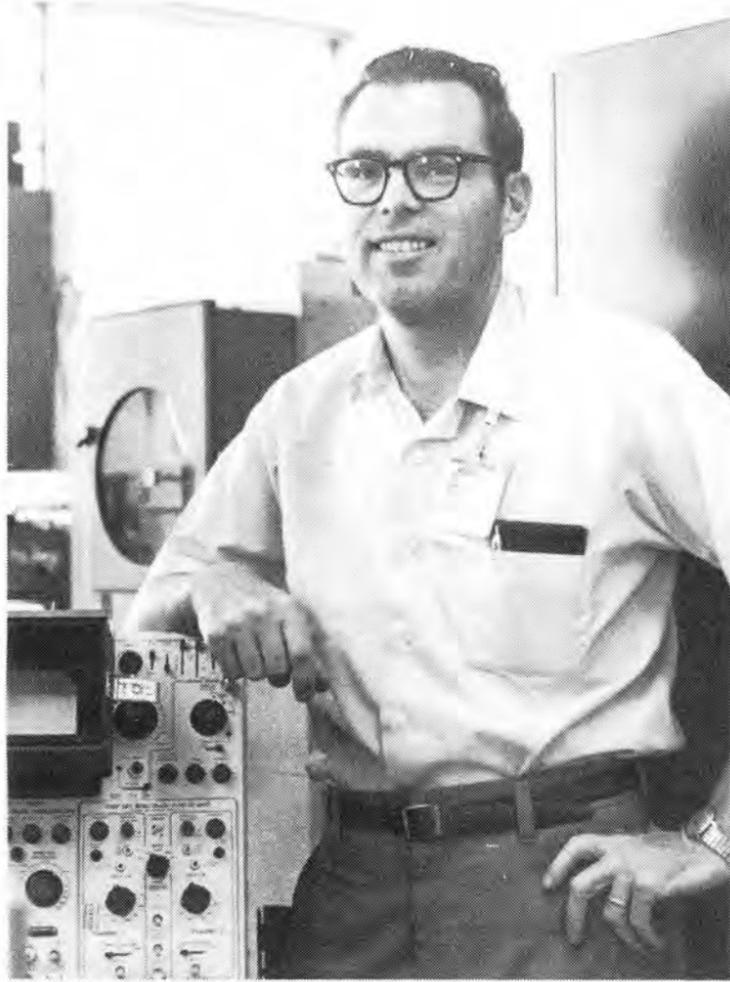
Richard Simmons — 4551 15



Warren Ballard — 1432 20



Turk Levy - 1342 20



W. A. Stephenson - 1411 15



Edna Bierner - 4152 20



William Roherty - 1731 20



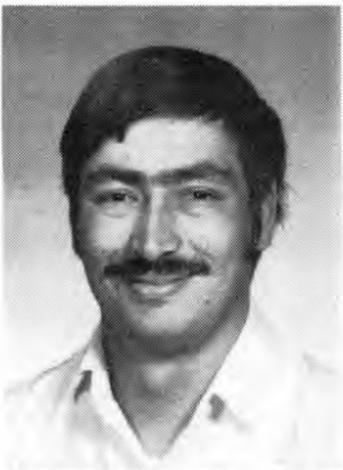
Haskell Woodall - 9112 15



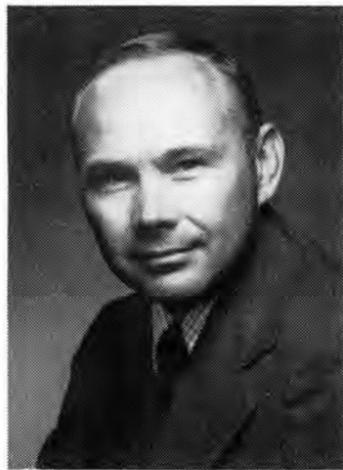
Lyle Whelchel - 4372 15



Max Hodge - 5413 20



Florindo Salas - 5411 10



Don Carnicom - 1331 15



Charles Gebert - 1314 15



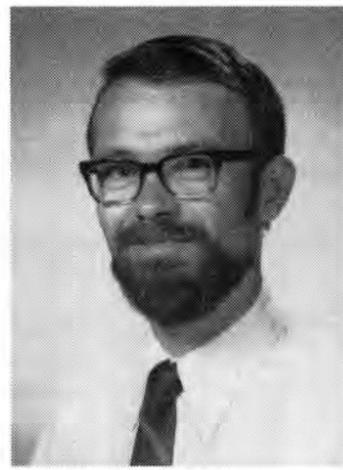
Philip Anderson - 5166 10



William Bradford - 1733 15



Jerry Lochtefeld - 1213 15



Tom Young - 1334 10



Leon Hobbs - 7614 20



Edward Stepka - 9217 20



Bob Sonnenberg - 1555 15



Ricarda Gallegos - 3151 20

Retiring



Lois Swayze (4152)



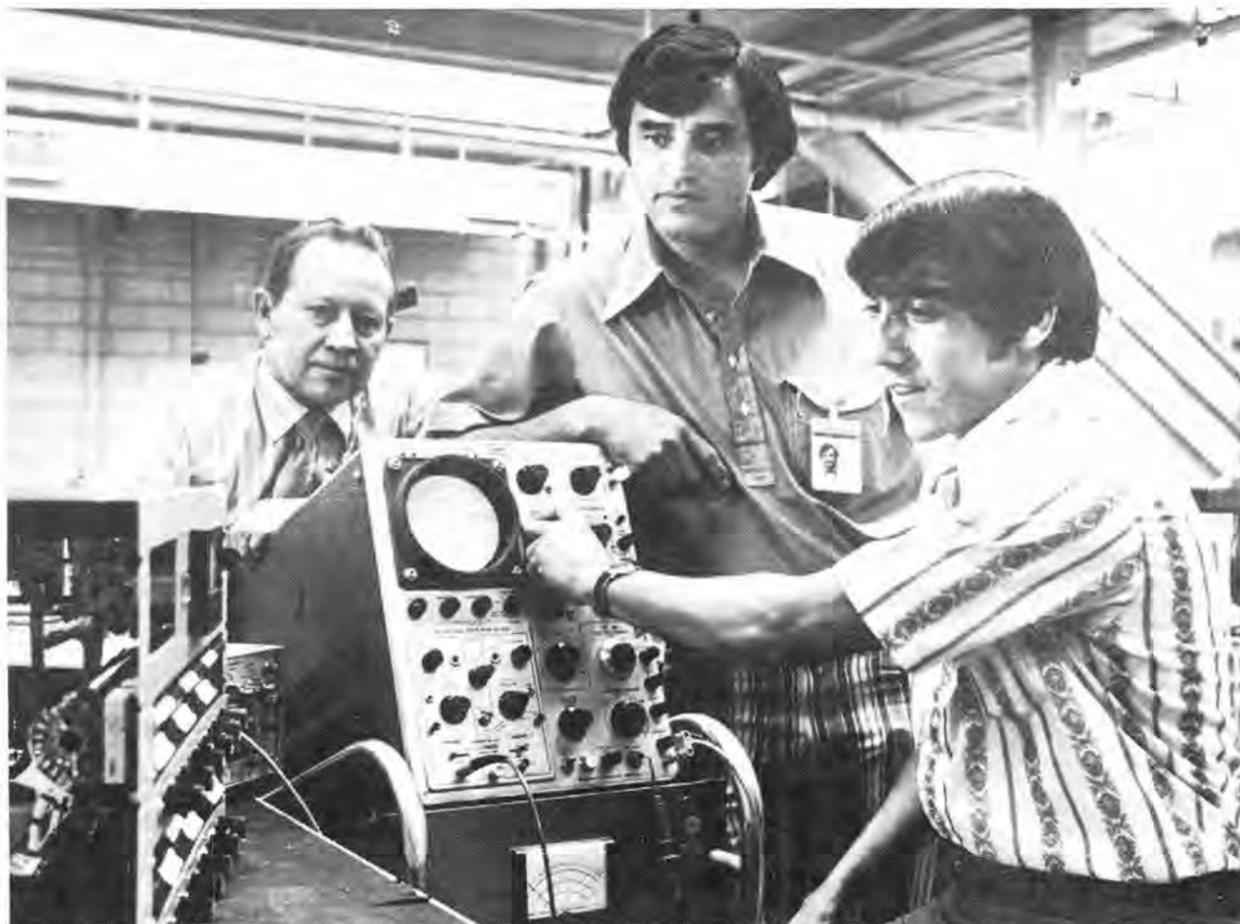
Veronica Dostert (3141)



Joe Hickey (4138)



Archie Fisher (7142)



TWO "ALL-A's" graduates of Sandia's electronic apprentice program are John Aragon (center) and Jim Landavazo (right). High grades permitted early graduation from the four year program. Art Cordova, head of Electronic Apprentice Section 7131-3, looks on.

Got Any Ancient History?

Bill Jenkins, who used to be a Sandian and now handles employee publications and graphics for Lawrence Livermore Lab, is planning a pictorial photo brochure to mark the 20th anniversary of L-Cube next fall. He's looking for historic photos that would be of

general interest, showing old timers in field operations, or other activities which may have been handled jointly by Sandians and U-Cal people. Anyone having such memorabilia should send it to PR Department 3160 at SLA, or to W.A. Jamieson (8235) PR Livermore.

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

- SEARS push mower w/grass catcher, \$15. Shurtleff, 255-6635.
- 14' SKI BOAT, 80 hp Evinrude, trailer, ski equip. Schroeder, 296-6465.
- PACIFIC 12 ga. shotshell loader, \$18; 22 revolver, \$35; 30/06 rifle w/scope, \$120; Weaver 22 scope, \$5. Svensson, 898-3078.
- 21' SAILBOAT Venture 21, sleeps 4, complete, ready to sail, trailer & 4 hp motor, \$2400. Parker, 299-0289.
- ASSEMBLED Heathkit AR-15 receiver for \$380, 2 yrs. old. Smith, 344-9335.
- ARISTOCRAT TRAILER, traveller series, 15', sleeps 5, extras. Garin, 298-7963.
- TIBETAN PALACE DOG, AKC reg. Lhasa Apso, male, 8 mos. old, all shots, \$175. Cropp, 296-1877.
- ENCLOSED cartop carrier w/straps & suction cups; gold Lazy-Boy recliner. Anez, 299-6301 after 5.
- GIRLS comb. desk-powder table, French Prov., antique white, \$15; shop manuals, 61-62-63

- Corvair plus fuel pump & ign. kit, \$5. Roberts, 255-9527.
- TWO girls bicycles, 24" tires, \$15, \$10. Cano, 296-6955.
- BABY CRIB, Sear best, w/foam mattress, \$20; steel lawn chairs, 2 w/table, \$9. Durkee, 298-9278.
- GO CART frame w/3 new tires; 2 ea. Cox model cars, 2-cycle engines; B&S engine w/splined output shaft for gear box. Markowitz, 898-2991.
- STUDENT clarinet w/case, \$75; girls bike, 26", \$10. Schuster, 255-5970.
- '65 CORVETTE short block 327-250 HP, also has oil pan. Guist, 299-0067.
- GO CART, B&S 3 1/2 hp, straight belt drive. Fitzgerald, 298-8851 after 5:30.
- GIRLS 26" bike, \$15. Howe, 877-1963.
- FULL SIZE girls bicycle, 3-spd., blue. Miller, 344-7725.
- MALE AKC Cairn Terrier puppies, champion blood lines, McIlmoyle, 2413 Cagua NE, 268-6532.
- NEW LR SET, vinyl avocado green couch w/matching chair, retail \$219, sell for \$150. Cruz, 344-8063.
- GUITAR, Harmony make, made in USA, steel reinforced neck, \$65. Griffin, 298-1174.
- KOHLER, new, blue wash basin w/fixture, \$20; used white wash basin w/fixture, \$15. Benedict, 869-2949.
- '71 HONDA CB 450. Call after July 10. Janes, 265-8153.
- GOLDEN RETRIEVER PUPS, whelped May 5, dam & sire

- AKC and OFA. Pryor, 344-2931.
- '66 HONDA CB 77, 305cc, recent engine overhaul plus new battery, ignition components & fork lock; rack & mirrors; new helmet w/full face shield, \$390. Herndon, 268-8269.
- LARGE TENT suitable for hunting or for Boy Scouts, \$20. Patterson, 877-3158.
- MAGNET 10-spd. bicycle, new, list price \$139.95, sell for \$100. Canfield, 299-9628.
- GIRLS 26" bicycle, w/w tires, chrome fenders, \$25. Coleman, 299-2377.
- B&S 3 hp, 4-cyl. vertical shaft engine, \$10. Ricker, 296-2191.
- '71 HONDA 125SL Enduro, 6 mos. old, low mileage, \$495. Smaier, 299-8413.
- '61 HARLEY DAVIDSON, 74 cu. in., 14" extended hydra glide, \$1100. Haskins, 282-3748.
- '69 HONDA 175 trail bike, new tires, needs minor work, \$150. Harrison, 296-3235.
- '60 AMERICAN (President) 10x50 3-bdr., partially furnished, \$1800. Byrne, 282-5365.
- 20" GASOLINE powered rotary mower; Cosco serving cart; 20" electric fan. Jones, 298-6422.
- SUZUKI 500cc motorcycles: '68, 1000 miles on rebuilt engine, extras, \$495; '70, 12,500 miles, fairing, extras, \$695. Grace, 299-8105.
- WILSON K-28 golf clubs, irons 2-9 plus pitching wedge, woods 1, 2, 3, 4, matched & registered, \$100. Simmons, 344-4527.

- 18-GAL. SHOW AQUARIUM w/fish & all, \$25 or best offer; flood light for movie camera, \$6. Schulze, 299-0152.
- HERCULES AMF 3-spd. English bicycle, \$75. Steele, 877-1225.
- RAC TACHOMETER, cost \$40, sell for \$25, has a warranty; 1 mag wheel & tire, 14x6, Chevy, Fuller, 294-3089.

- SEARS CAMP TRAILER, sleeps 4, includes spare, \$350. Garrison, 256-7267.

FOR SALE REAL ESTATE

- APPROX. ONE ACRE mountain cabin site near Brazos Lodge, price negotiable. Lassiter, 255-0532.
- 3 LOTS in Paradise Hills; full acre plot in Sierra Encantada Addn., 5 miles south of 66 on Hy 217, terms. Brown, 296-5949.

FOR SALE CARS & TRUCKS

- '69 JAVELIN, SST model, V8, PS, wsw belted tires, AC, AM/FM, still in warranty. Gorin, 298-3100.
- '67 JEEP WAGONEER, AT, PS, PB, AC, radials, V8, retail about \$2400, asking \$2195. Stevens, 299-6086.
- '66 OLDS Toronado, \$1295. LaPoint, 268-2290.
- '70 OPEL GT, AT, radio, 22,000 miles, \$2495. Schmierer, 299-2352.

- '66 VW CAMPER, factory equipped. Jorgensen, 298-9834.
- '64 DODGE sedan, \$525. Carrillo, 247-9700.
- '68 CHEVROLET pickup, LWB, V8, 4-spd., new tires, many extras. Hoagland, 282-3825.
- '63 CHEVROLET 4-dr. sedan, low mileage, one owner, \$450. Walsh, 298-3173.

FOR RENT

- FOR LEASE — new 4-bdr. house, garage, range, refrig., drapes, carpet, AC, available Aug. 20, \$235/mo. Young, 298-7841.

WANTED

- BOX SPRING AND MATTRESS, twin size; Hollywood bed frame. Peterson, 256-7514.
- USED Yamaha piano. Schuster, 255-5970.
- DESPERATE. No honorable offer refused. LAB NEWS needs a 2-drawer file (no 4-drawers need apply), all approved channels exhausted. Desperate, x-1053.

WORK WANTED

- SANDY, college student, dress-making, reliable, experienced; also some handwork. Ellingson, 299-4056.
- DEBBIE, beginning private swimming lessons by experienced teenager, \$1 per half hour. Kassens, 299-5436.
- DAUGHTER will board 1 or 2 horses, wood corral, exercise area, handy to trails. Netz, 282-3607.



YOUTH is a wonderful thing. Too bad it's wasted on kids. Celebrating the news of two special events for teenagers planned by the Coronado Club are (l to r) Don

Wagner, Kathleen Kelly, Jeff Pewe and Terri Newsom, younger members of the Club's pool staff.

Coronado Club Activities

Special Events Set For Kids

TEENAGERS rate a couple of special events during the next two weeks at the Coronado Club. The first one is a Rock Concert set for the patio area on Wednesday,

July 12, from 2 to 5 p.m. A couple of rock bands, one called "Medusa," will be wired into an outdoor bandstand and alternate entertaining the youngsters. Yes, there will be dancing and cavorting about. Entrance to the event will be through the swimming pool gate. Guest youngsters will pay 50 cents (the usual swimming guest fee for kids). Urge your kids to attend — it's their show.

(for those who must), shrimp sauce and salads. The Club calendar says "all you can eat" at \$2.95 which includes a glass of beer or wine. Bring as many friends as you like — no guest fee for this one. No reservations are needed; just show up between 6 and 9 p.m. with the big hungries.

* * * *

VAUDEVILLE NIGHT on Saturday, July 22, will see the return of the Whistlers, a fantastic act that killed them during the Roaring 20's party. In addition, a modern folk singing duo called Carl and Jerry will entertain. The movie will be Walt Disney's "The Three Lives of Thomasina." The fun starts around 6 p.m. when super sandwiches and Happy Hour prices become available.

* * * *

THE DISNEYLAND TRAVEL PACKAGE has shaped up this way: \$129 buys you four days starting Aug. 3. It includes all air transportation, hotel accommodations, gate admission plus 10 activity tickets to Disneyland, and tours of the Los Angeles area — Farmer's Market, CBS Studios, Queen Mary, Knott's Berry Farm. Report to the Club office if you're interested.

* * * *

CHILDREN of Sanado Women will be guests at a Mad Hatter's party on Tuesday, July 11. Entertainment will be a variety show.

Second event for the kids is a Teen Go Go set Tuesday, July 18, from 7:30 to 10:30 p.m. Backseat Bogie is the name of the group. Chuck Logan of KQEO will be master of ceremonies. Member youngsters get in free, guests pay 50 cents.

* * * *

HAPPY HOUR tonight will see the return of the Country Express to the bandstand while the Club's kitchen staff wheels out Rio Grande Style Mexican food for the buffet. Denny Gallegos will entertain in the main lounge. Next Friday, July 14, Wildman Bob Banks will play for dancing. The buffet feature will be southern fried chicken. On Friday, July 21, the Prisoners will be loose on the bandstand while the Club's famous chuckwagon roast beef is carved for the buffet. Yolanda will conduct the sing-along in the main lounge.

* * * *

A SHRIMP PEEL is what it's called and it's scheduled Saturday, July 15, from 6 to 9 p.m. There will be tubs of shrimp and chicken

SAFETY SHOES REALLY WORK

