

Lou Paddison Elected Fellow by ASQC

Lou Paddison, director of Product Data Systems Development, 1800, has been elected to the grade of Fellow of the American Society for Quality Control. His citation as Fellow reads:



"For his innovative and creative contributions to the future of quality control and the unusual cross application of quality reliability principles within the area of design engineering."

Formal presentation of the certificate was made at a local meeting of the Albuquerque Section, attended by Bob Henderson (7000) and about 35 other Sandians who are ASQC members.

At Sandia since 1947, Mr. Paddison was named Director of Quality Assurance in 1950, Director of Reliability Development in 1958, and Director of Product Test Equipment Development in 1960. He assumed his present position in July 1968.



PATENTED recently by the AEC is this acceleration sensitive actuator device displayed by inventors George Ray, left, and John Von Dreele. John holds the uncovered device, George the cover.

Patent Awarded for Acceleration-Sensitive Actuator Device

A patent was recently awarded AEC in the names of George Ray and John Von Dreele for an acceleration-sensitive actuator device. The development work for the invention was performed in Electromechanical Department 2320. Both engineers have spent more than 15 years in component development at Sandia.

The device senses a specific level of acceleration lasting for a given time period and then initiates a response. An element of the device moves in response to the acceleration forces and carries an actuator member and a trigger mechanism. The trigger is controlled by a cam that swings and releases it after the predetermined movement.

Variable Annuity Unit Value

June 1971	1.752
May 1971	1.689
Average 1970	1.417

LAB NEWS

VOL. 23, NO. 12

JUNE 18, 1971

SANDIA LABORATORIES • ALBUQUERQUE NM • LIVERMORE CALIF • TONOPAH NEV

New Frontiers of Science — — — Garbanzo Beans

In modern electronics, a wide range of encapsulating materials is used for shock mitigation and protection from environmental hazards. The materials include epoxy plastics, foam encapsulants, brown sugar, garbanzo beans. . .

Brown sugar? *Garbanzo beans??*

It's true. In recent months Sandia researchers have been scurrying to the grocery stores for supplies not only of brown sugar and garbanzo beans but of rice and popcorn as well. These materials are carefully packed around electronic components in a container, then sealed prior to shock testing.

After testing, the component can be removed easily from the container and repaired or modified for future use. Try doing that with a component potted in epoxy!

Don Williams, supervisor of Mechanical Design and Test Division 9484, explains:

"Potting materials are impervious to most solvents, and so can only be dissolved out of a finished assembly very slowly and with great difficulty. Also, any chemical which will dissolve the potting material is apt to damage the electronic components beneath. For this reason, the potted assemblies tested are usually considered beyond salvage."

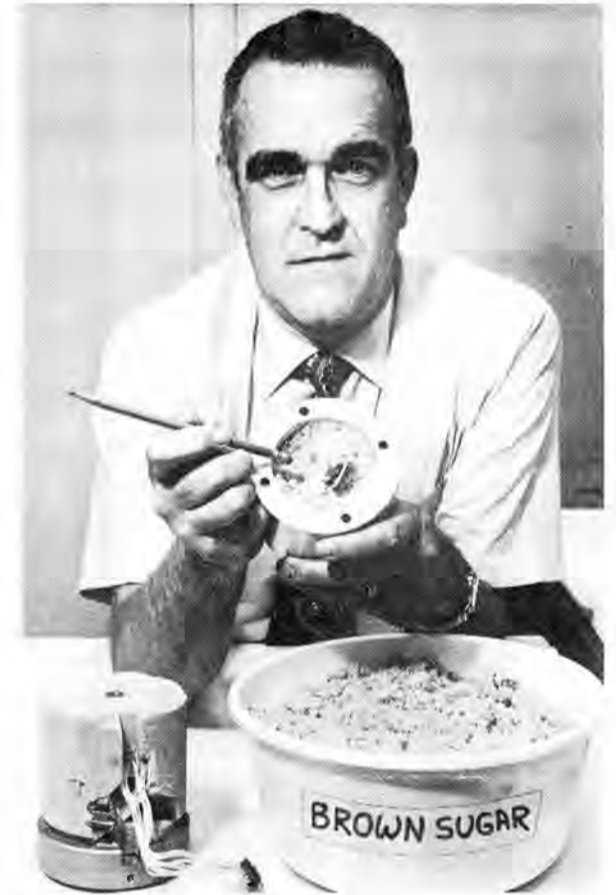
It was this circumstance that led Don to look around for temporary encapsulating materials. Among the materials studied were those which would soften in response to heat or humidity, powders that would pack into a near-solid structure, and pellets that could be compressed into a tight supporting mass.

While studying the heat-sensitive encapsulants, Don learned that low-melting-point metals were generally unsuitable because they were conductors and would leave a troublesome thin film on the component after removal. Certain plastics were investigated, but these melted at rather high temperatures and were subject to shrinkage — two factors which might damage delicate parts.

Most successful encapsulant in this category was paraffin wax — the kind grandmother uses to seal her home-made preserves. As a tool for testing, it's heated to 158°F and poured around components in a pre-heated fixture. After testing, the fixture is simply re-heated and the contents removed.

Brown sugar came to the fore because it pours easily when it's humidified and sets when dry. Seems that each sugar granule is coated with a thin film of molasses which picks up moisture. This water acts as a natural lubricant that allows the sweet stuff to pour or flow. When it's dried out, however, the molasses turn varnish-like and welds the crystals together.

At Sandia, components tightly packed in a sugar package and dried are subjected to as much as 20,000 g acceleration without "bouncing around" in the container. Afterwards, the package is re-humidified (a



BROWN SUGAR, right off the grocery shelf, is used to pot components for testing purposes. Don Williams demonstrates the tamping process. The unit is later heated under a vacuum to produce the hard shell, shown at left, which was fired in a 155mm gun. The sugar is later easily removed to examine components.

teaball containing a moist sponge placed in a sealed container with the unit works fine), the sugar is readily removed, and the component is laid bare for study.

Soapstone, another common material, has been reduced to a powder which is packed around components for acceleration testing within artillery shells up to 50,000 g. After removal from the container, the soapstone block crumbles away to reveal the test item.

And now we come to the rice, unpopped popcorn, and garbanzo beans (chickpeas). These are used for "pellet potting" along with the more expensive glass micro-balloons, plastic beads and rubber pellets. Tony Parisi learned that while they have a lower dielectric strength and heat resistance the natural seeds possess several advantages. They do not break into an abrasive powder as glass does, nor do they spring back as plastic does; and they pack into smaller volumes better. After a test these materials can simply be poured out of the canister — no heat or humidification treatment is needed.

Any drawbacks? "Not really," Don replied, "the sugar works — and it's hard to beat the price."



Credit Union Reporter

(Bill Prekker(4122), Credit Union President

Livermore News

There's good news for our Livermore members. With new facilities and full service operations coming up, I'd like to describe what's in the wind for the Livermore Branch of the Credit Union.

As you know, Bldg. 911 is being remodeled, and the plans call for new office space for the Credit Union, including a customer lobby. The facility will be well appointed and attractive (the Credit Union provides all equipment and furnishings) and should be occupied in late June — come and look it over.

Bernie Underwood, our branch manager at Livermore since last September, has recently gained some assistants — Steven King and Janis Krueger. Mrs. King (Steven is a she) just spent a month in Albuquerque learning the ropes and is now back at Livermore briefing Janis and preparing for the opening. Stop to meet Bernie, Steve and Janis in the Credit Union Office. They're anxious to assist you with your Credit Union business.

The Branch plans to begin full service operations on July 1. Services then available will be:

1. Immediate withdrawal of shares, with cash withdrawals up to \$200 if the member so desires (otherwise payment is by check).
2. Immediate (10-minute) loan service, except in unusual circumstances. Have a cup of coffee on the Credit Union while you wait.
3. Immediate credit for deposits and payments.
4. Cashing of personal checks and checks made payable to the member up to \$100.
5. Cashing of Credit Union checks in any amount, subject to availability of funds.
6. Free notary service.

To make these services possible, a Credit Union bank account will be maintained at the Wells Fargo Bank in Livermore.

Festivities are planned to mark the occasion. On Thursday, July 1, at 7:30 p.m.

come to the Sunol Country Club with your wife or husband to talk to Bill Bristol, our General Manager, myself, and a number of the board members. We'll give a rundown on planned operations and answer questions. Refreshments will be served, you'll get a souvenir, and the door prize, a portable color TV set, will be given to some lucky member. Remember: you can join the Credit Union with the purchase of one \$5 share.

* * * *

CU Bulletin Board

In its last session the New Mexico legislature passed a law reducing the age of majority to 18 years. With few exceptions, a person is now considered an adult at age 18.

Those members who now have accounts under the Uniform Gifts to Minors Act can maintain them until the individual reaches age 21. However, any account opened after June 17 (effective date of the legislation) must be closed when the minor reaches 18.

Authors

R.W. Rohde (5531) and T.L. Towne (9124), "The Shock-Compression Behavior of Tantalum at 25 and 900°C," Vol. 42, No. 2, JOURNAL OF APPLIED PHYSICS.

George Voids (2635), "Bonding Strength of Encapsulating Materials to Hookup Wire," April 1970 issue, INSULATION.

P.J. Chen (1721), "The Growth of One-Dimensional Shock Waves in Elastic Nonconductors," January issue, INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES; "A Note on Non-Simple Heat Conduction," Vol. 19, ZAMP.

C.C. Whitcomb (formerly 4541), "Cooling Water Treatment Automation Saves Money, Resources: Cuts Down Time," October 1970 issue, HEATING, PIPING AND AIR CONDITIONING.

L.S. Nelson (5224), "Heating of Basalts with a CO₂ Laser," Vol. 170, page 435, SCIENCE; "The CO₂ Laser—New Tool in Ceramic Science," Vol. 86, page 38, CERAMIC AGE.

R.J. Thompson (1722), "Improving Round-off in Runge Kutta Computations with Gill's Method," December 1970 issue, COMMUNICATIONS OF THE ACM.

R.G. Webster and A.D. Swain (both 1644), "Human Factors Inputs to Large-Scale Field Tests," Air Force Human Resources Laboratory TR-69-6.

L.W. Brewer (3311), "Atomic Absorption Spectrophotometry," Vol. 31, No. 4, AMERICAN INDUSTRIAL HYGIENIC ASSOCIATION JOURNAL.

Dan Parsons (7374), "R/C Model Planes as an Engineering Tool," February 1970 issue, R/C MODELER.

R.C. Hughes (5514), "Germinate Recombination of X-ray Excited Carriers in Organic Solids Poly-N-Vinylcarbazole," Vol. 8, No. 5, CHEMICAL PHYSICS LETTERS.

A.L. Roark (1741), "On the Eigenproblem for Convolution Integral Equations," Vol. 17, No. 1, NUMERISCHE MATHEMATIK.

Bill Boverie (1733), "A Signal Detectability Approach to Optimization of the Geometry of Distributed Aperture (Array) Receivers," Vol. AP-19, No. 1, IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION.

R.J. Chaffin (5112), "Grid-Separated Microwave Triode Oscillators — Analysis and Design," Vol. MTT-19, No. 1, IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES.

Bruno Morosin (5152), "The Crystal Structure of Dimeric Methyl (Propynyl) Beryllium-Trimethylamine," May issue, JOURNAL OF ORGANOMETALLIC CHEMISTRY.

W.S. Saric (9341) and Zalman Lavan (Ill. Inst. of Tech.), "Stability of Circular Couette Flow of Binary Mixtures," May issue, JOURNAL OF FLUID MECHANICS.

C.H. Seager (5134), "Electronic Hall Mobility in the Alkaline Earth Fluorides," May 15 issue, PHYSICAL REVIEW B.

Supervisory Appointments

JACK WALKER to manager, Simulation Sciences Department 5220, effective June 1.

Joining Sandia's research organization in May 1964, Jack's work has been primarily in the area of neutron and gamma ray measurements. In July 1966 he was promoted to supervisor of Radiation Source Diagnostic Division 5223. Before coming to the Laboratories, Jack had been chief of the advanced training section with the U.S. Army's reactor group in Washington, D.C. He was also an assistant professor of nuclear engineering at Texas A. & M. University.

Jack earned a BS degree in mechanical engineering and his PhD in nuclear engineering from Texas A. & M. He is a member of the American Society for Testing Materials, the American Nuclear Society, the American Association for the Advancement of Science, and the American Physical Society.

Jack and his wife Sharon have a son and a daughter and reside at 1910 Bryn Mawr Dr. NE.



RICHARD DAMEROW to supervisor, Exploratory Measurements Division 1442, effective June 1.

Dick came to the Laboratories in June 1963 as a staff member in the research organization where he was concerned chiefly with research relating to explosively-driven compressed field generators. In November 1967, Dick transferred to a division furnishing technical direction in underground testing. He served as Technical Director for the Hudson Seal test and, until this promotion, has been Technical Director for the Camphor experiment.

He earned BS, MS and PhD degrees in physics from the University of Minnesota in 1958, 1960 and 1963 respectively. He is a member of the American Association of Physics Teachers, the American Institute of Physics, and the American Association for the Advancement of Science.

Dick and his wife Yvonne have two daughters, ages 4 and 8, and live at 2924 Espanola NE.



DICK LYNCH to supervisor, Applied Material Science Division 5323, effective June 1.

Dick was employed by Sandia in March 1966 in a chemical physics research group where he did investigation of lattice parameters of solid materials. From 1966-'68, Dick took military leave of absence from Sandia to serve with the U.S. Army Signal Corps.

He earned his BS degree from the University of California at Berkeley, and MS and PhD degrees — all in chemical engineering — from the University of Illinois. He is a member of the American Association for the Advancement of Science, and the Society of Sigma Xi.

Dick and his wife Myra have three children and live at 7500 Osuna Rd. NE.



LAB NEWS

Published every other Friday

SANDIA LABORATORIES

An Equal Opportunity Employer

ALBUQUERQUE, NEW MEXICO
LIVERMORE, CALIFORNIA
TONOPA, NEVADA

Editorial offices in Albuquerque, N.M.
Area 505 264-1053
ZIP 87115

In Livermore Area 415 455-2111

John Shunny is Editor, Don Graham, Ass't. Editor

Matt Connors & Lorena Schneider
Staff Writers in Livermore

Bill Laskar, Photographer
Norma Taylor/All The Rest

LIVERMORE NEWS

VOL. 23, NO. 12

LIVERMORE LABORATORIES

JUNE 18, 1971



"SECURITY IS" CONTEST—Tom Grayson (8254) submitted the winning caption for June, "Security is Proper Visitor Surveillance."

Technical Paper Published

Ed Barsis, Ed Williams and Cliff Skoog of Instrumentation Development Division 8342 are authors of a technical article entitled "Piezorestivity Coefficients in Manganin," which appeared in a recent issue of the JOURNAL OF APPLIED PHYSICS.

LRL Swim Pool Season Underway

The LRL pool is now open on a regular seven-days-a-week schedule for the summer months.

As in the past, Sandians may swim by joining the Lawrence Radiation Laboratory Recreation Association (RLRA) at a cost of \$1, and then either purchase a season ticket or pay a single admission fee each time they swim. They may enroll their families.

Located near LRL's Personnel Building, the pool facilities include barbecue and picnic areas, basketball and volleyball courts, and a wading pool for youngsters.

Pool hours are Monday, Wednesday, Friday, and Saturday, 1-7 p.m.; Tuesday and Thursday, 1-9 p.m.; and Sunday 1-6 p.m., with noontime swimming (for employees only) Monday through Friday.

Prices for the 1971 season are \$25 for family memberships and \$15 for individual memberships. Single admissions are \$.50 per adult and \$.30 for children, with a 10-ticket swim card available at \$4/adult and \$2.50/children.

'High Explosives Use In Nuclear Weapons' Colloquium Topic June 24

The evolution of "main charge" explosives in nuclear weapons will be presented by Dr. John Kury at a colloquium to be held June 24 at Sandia Laboratories Livermore. The properties of high explosives currently being used and the LRL work on three new, radically different formulations will also be discussed.

Dr. Kury received his Bachelor's degree from St. Louis University and his Doctorate from the University of California/Berkeley. In 1953 he joined LRL where he is currently Division Leader, Organic Materials Division. His research has been concerned with explosives, boron hydride chemistry and fluoride complexing of inorganic ions.

Tickets are required for admission. Alec Willis (8351) is host.

Trophies to Bowling League Winners

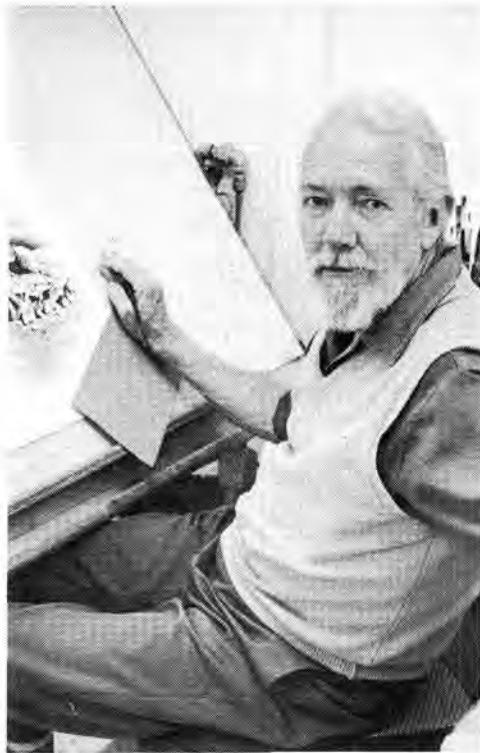
Winners in the Sandia Mixed Handicap Bowling League's winter competition received trophies during recent ceremonies.

First place in the 10-team league was captured by the "Hugger Muggers" team, captained by Bill Moore (8332). The "Tigers," captained by Roger Baroody (8160), took second place.

For the men, individual awards were won by Bob Hargreaves (8125) for his high-scratch game score of 248; Don Adolphson (8312) for high-handicap game of 267; Don Knaple (8161) for high-scratch series, 695; and Elmer Smith (8136) for high-handicap series, 686.

Taking honors for the women were Jan Silva (8323) and Jan Rego (a former Sandian) who tied with high-scratch game scores of 213; Mary Moore (wife of Bill Moore 8332) for high-handicap game of 252; Mary O'Shea (8235) for high-scratch series, 574; and Gayle Tschritter (wife of Ken Tschritter 8313) for high-handicap series, 642.

Retiring



BEN AIKIN (8231)



DENNIS SPARGER (8256)



MARIE REAM (8230)



WAYNE GRIMSHAW (8274)



FRANKLIN MOORE (8121)



TOM HOLMES (8125)

Take Note

Hartmut Spetzler of Materials Division 8311 presented a technical paper entitled "Remarks on Ultrasonic Measurements of the Elastic Properties of Hot Pressed Polycrystalline Samples," at the 52nd annual meeting of the American Geophysical Union held recently in Washington, D.C. The paper was co-authored with Richard O'Connell of California Institute of Technology.

* * * *

Discount tickets for the Alameda County Fair in Pleasanton, June 27 to July 11, are available in Employee Benefits (Mobile Office No. 3) on a first-come, first-served basis. Regular \$1.50 admission is \$1.00, plus a free grandstand ticket which is normally \$1.00—a \$2.50 value for \$1.00. All other tickets must be purchased at the gate.

Retiring



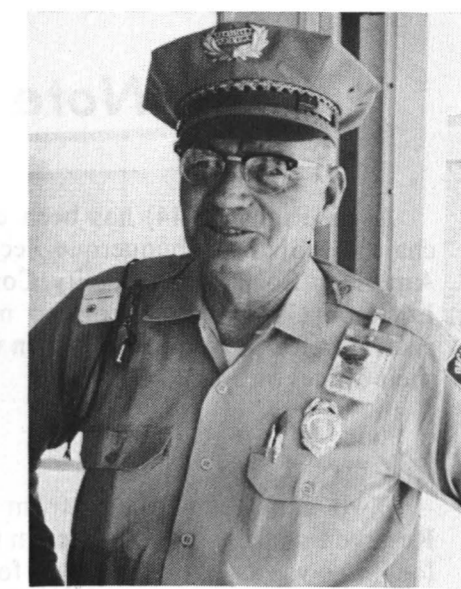
STAN UREVITCH (4212)



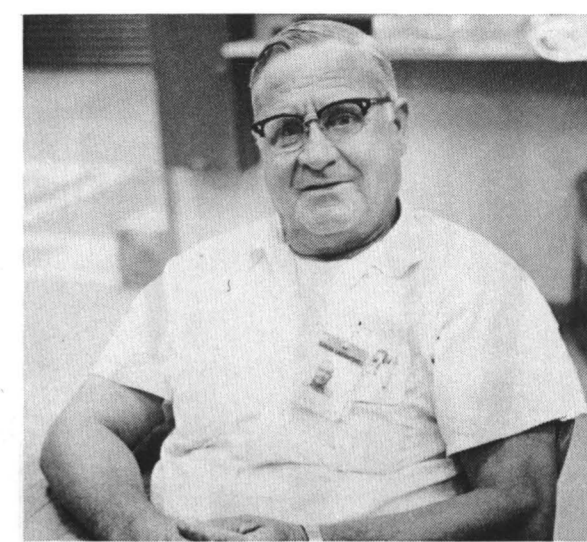
RUTH JANSEN (7654)



MARY WORMELI (4543)



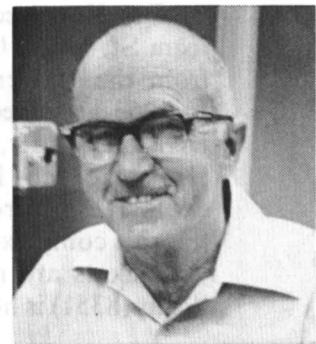
THOMAS CARBIN (3523)



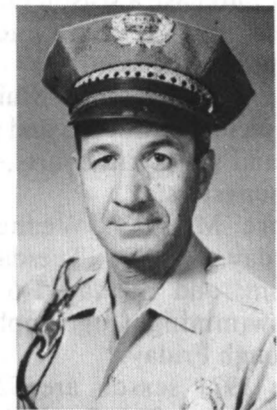
GUY DENTON (4518)



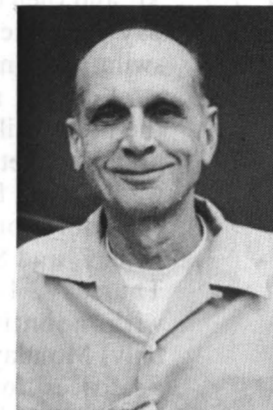
MARY DEAN (3421)



P.R. PALMER (9226)



FRANK SHINGOLA (3524)



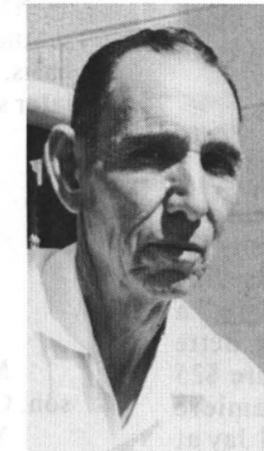
CLINTON HENRY (7222)



BENJAMIN LOPEZ (4251)



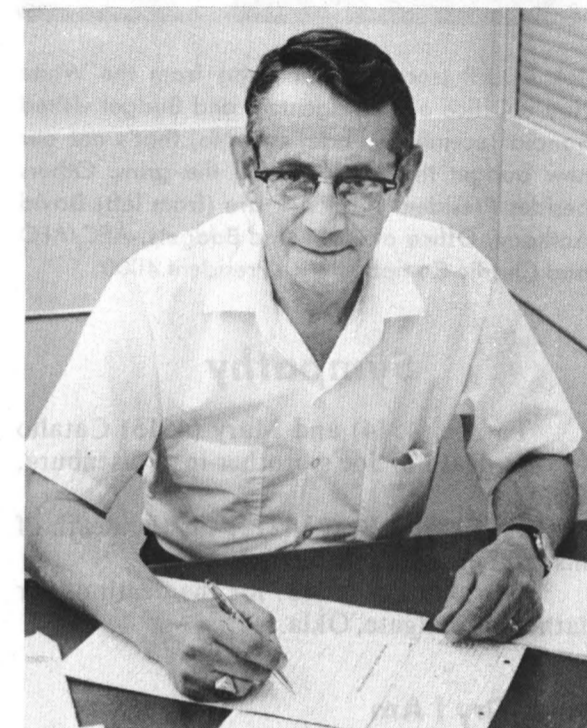
AARON KINT (4213)



CARLOS CANDELARIA (4518)



PEGGY HENRIE (3521)



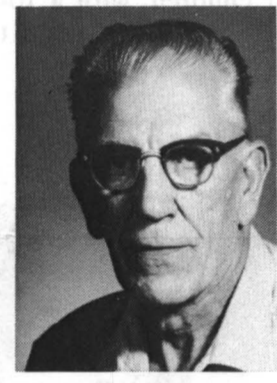
RALPH AMBROSE (4553)



FRANCIS NEAS (4511)



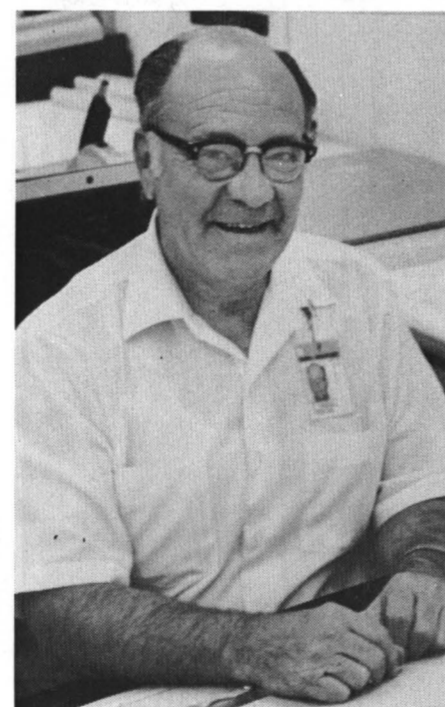
MARJORIE ENDRES (1723)



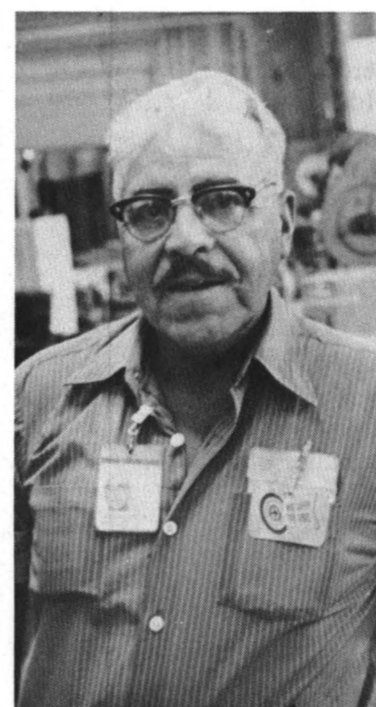
LESTER PTACEK (2632)



RUTH DERRICK (4358)



RANDY PARSONS (7654)



GUADALUPE MIRELES (4623)



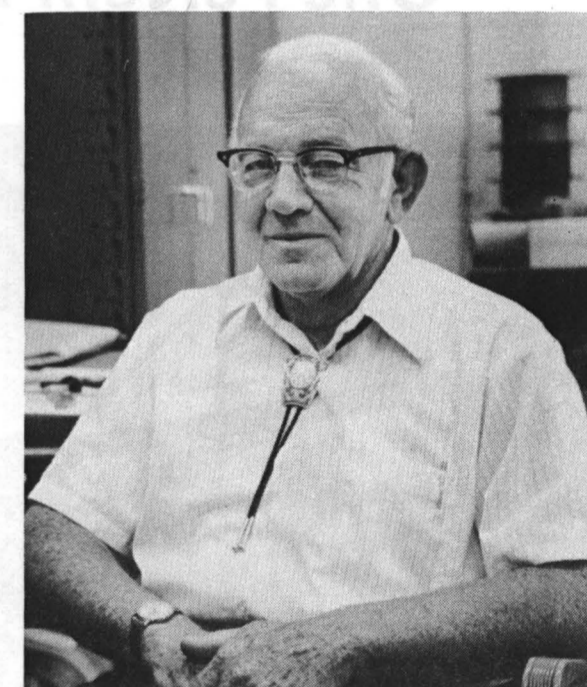
MALERY JONES (4515)



MARY CATALLO (4515)



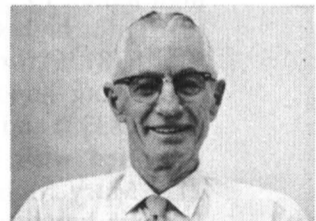
WILLIAM BAILEY (7373)



WARREN ELDER (4552)



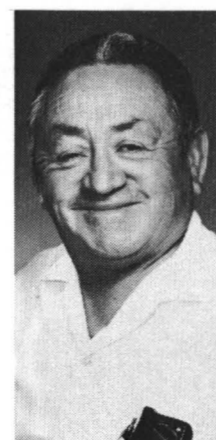
ALVIE BARRETT (3313)



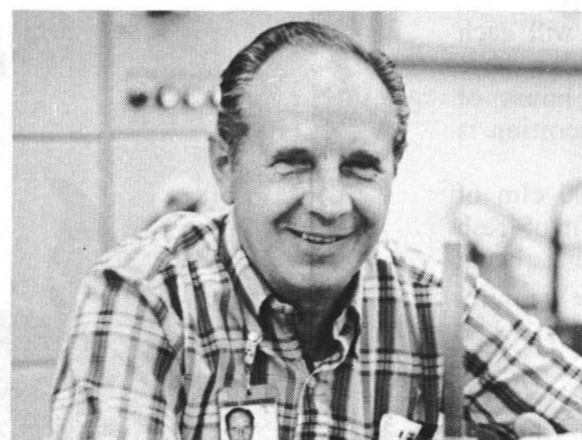
WALTER MARTIN (4512)



BONIFACIO GRIEGO (4212)



SAM LOPEZ (4622)



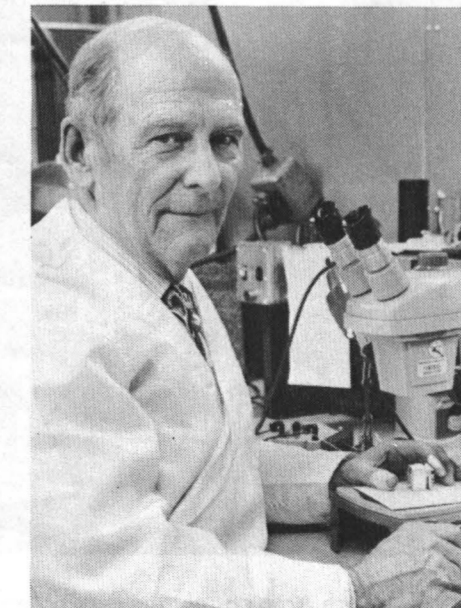
NICK KASNIC (4232)



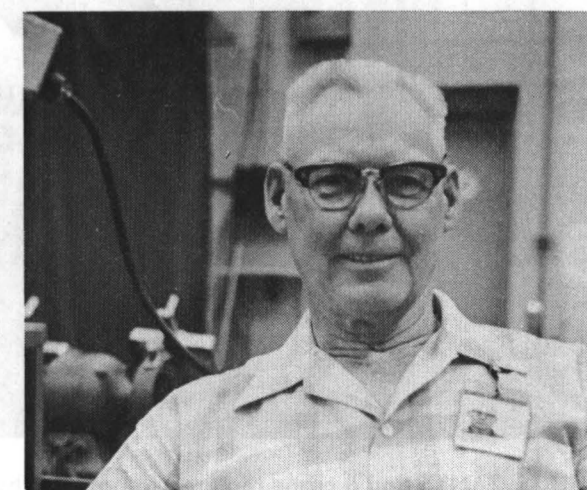
CARL ENDRES (7521)



MILTON GUEST (4513) CHARLES WORMELI (4252)



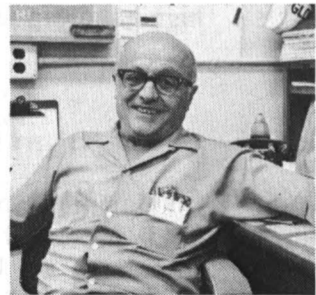
OSCAR BRAUNE (7433)



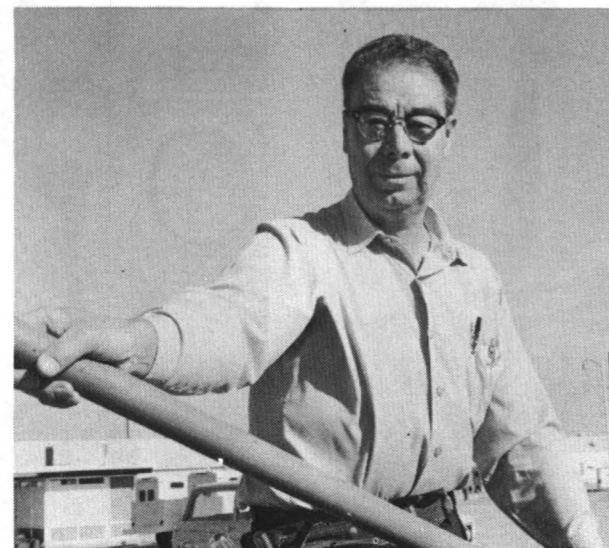
FORNEY CARPENTER (4518)



JACK HAMMERSTRAN (2452)



C. J. LUCCI (4513)



CLAUDE BACA (4513)



EDWARD LISTER (4221)



IRA ADLER (second from right) from the White House Office of Management and Budget visited Sandia recently for briefings. No, that's not our new budget that's causing all the grins. Others besides President Hornbeck are (from left) David Anthony, Office of Plans and Budgets, AEC/ALO and Charlie Campbell, Vice President 4000.

Sympathy

To Joe (4514) and Mary (4515) Catallo for the death of Joe's brother in Walsenburg, Colo.

To Charles Bray (4212) for the death of his mother in Bluefield, W. Va.

To Edna Lee (4212) for the death of her father in Coalgate, Okla.

Take Note

Lynn Rigby (1644) has been elected vice chairman of the Albuquerque Section of the American Society for Quality Control. Max Littleton (7425) was appointed membership chairman for the group. Both men will assume their offices on July 1.

* * * *

Two hundred dollars from the ECP Reserve Fund has been donated in the form of four one-week "camperships" for retarded children to attend Camp Shaver in the Jemez Mountains. The camp is administered by the Albuquerque YMCA.

Instrumental in the arrangements was Jim Kennedy (5133), a member of the board of the Albuquerque Association for Retarded Children. Jim headed a committee which obtained donations for 61 retarded children to attend the camp.

* * * *

Jay Batten (2633) is helping in the current effort to raise funds for the University of Albuquerque's fine arts building. He is selling tickets to the premiere of "Bunny O'Hare," a movie filmed in Albuquerque starring Bette Davis and Ernest Borgnine. Tickets are \$25 which includes cocktails, the premiere showing and breakfast afterwards. Call Jay at 265-2570.

Ethnic Issues Aired At Noontime Sessions

As one part of Sandia's and the AEC's continuing Affirmative Action program, three well-known speakers are scheduled for noontime talks in theatre building 815 this and next week. They represent Black, Indian and Chicano viewpoints.

Speakers and their topics are:

On June 17, Joel Ferguson, former Mayor Pro Tem and City Councilman in Lansing, Mich., "Issues and Elements of Today's Black Movement."

On June 22, Robert Bennett, Director of American Indian Law Center at UNM, "The Outstanding Issues Facing American Indians Today."

On June 24, Richard Griego, Coordinator of Chicano Studies and Associate Professor of Mathematics at UNM, "Is There A Chicano Movement Today?"

The talks will be inside the Tech Area and seating will be on a first-come, first-seated basis. Videotapes of the talks will be made for later showing.

Congratulations

Mr. and Mrs. William Drozdick (7651), a son, Gregory, May 16.

Mr. and Mrs. Jake Romero (5411), a son, Laurence Martin, June 6.

How Dry I Am

One Percent Humidity Possible with New Tanks



HUGE TANKS and a crane required to position them inside the Tech Area caught the eyes of many Sandians recently. The special equipment will supply air of very low relative humidity as an environmental requirement in fabricating thermal batteries in Division 2343.

Since May 10 when a crane lowered those bright metal tanks alongside Bldg. 814, speculation as to their use has run wild.

Bob Wehrle, supervisor of Power Supplies Division 2343, says, "the twin-tower dehydrator will create a special dry air environment needed for conducting research and development activities in thermal batteries."

Thermal batteries contain very hygroscopic materials which absorb moisture from the surrounding air, and it takes very little moisture to degrade the performance of the batteries.

There are two "dry room" facilities in Bldg. 814 used jointly by Divisions 2343 and 2345 in their thermal battery studies. For several years, these rooms have been dried to less than seven percent relative humidity at 75°F by dehydrators using aluminum oxide desiccant. This moisture level is too high for some of the studies being conducted, and the new dehydrator will maintain the dry room at less than one percent relative humidity.

The two "towers" or "tanks" will each contain 10,000 pounds of molecular sieve desiccant, which will permit 24 hours of adsorption per tower before regeneration is required.

While one tower is drying 6000 cfm of recirculated dry room air plus 200 cfm of fresh air, the desiccant in the other tower is being reactivated. The reactivation cycle requires nine hours to heat the desiccant to 600°F and nine hours to cool.

The new dehydrator, made to Sandia specification by a commercial firm, is scheduled to be in operation by the middle of June.

Service Awards

20 Years

William Chandler (3112), William Martin (3520), Fred Hohmann (8257), Charles Selby (1522), Milton Madsen (1555), Roy Lambert (1651), John McKiernan (1651), Omar Heins (4542), Fayne Shead (7451), Gurdon Miller (3412), Betty Van Gundy (4131), Kurt Baars (4151), Alan Pope (9300), Mae Lovelace (7533), Stan Pickens (8264) and Joseph Boyd (9239).

15 Years

R.W. Jorgensen (1226), John Willems (1514), J.T. Foley, Jr. (1543), Richard Griffith (2334), James Reese (2452), Edward Graeber (5522), Bruce Ercole (7282), Gerald Wilson (7523), Albert Hutters (9222), Edward Lane (2333), C.K. Hostetter (2624), Jesus Romero (3520), Merritt Hummer (4233), Stewart Ingham (7281), Harry Blechinger (7324), Keith Smith (9226), F.C. Sandoval (9414), Lowell Watkins (7224), Jim Kersey (8183), Charlie Blaine (1221), Ben Padilla (4514), Palmer Landis (7654), Gill Gordon (8177), Gene Ives (1226), Donald Burns (2335), Donald Arquette (2622), Henry Stuckert (9124), John Lenz (9125) and Jerald Long (9111).

10 Years

James Mason (2454), Matt Gubbels (7514), Clarence Robertson (7514), Kenneth Swanson (7654), Bill Landt (8139), Donald Fogel (9126), Robert Hutchison (9214), Frankie Crutcher (9239), Thomas Covert (5165), Peter Rand (5513), Chuck Riney (8273), Dick Houser (8124), Bill Byroads (8333), Wilbert Jones (7652), David Shank (1526), Kenneth Bauhs (7223), Daniel Tebbs (7223), Robert Balthaser (7434), Thomas McConnell (9235), Gene Haertling (2317), Thomas Massis (2346), Naomi Gallegos (7633), Ken Henry (8311), G.F. Wright, Jr. (9328), George Perkins (2613), Raymond Klein (5245), Gene Lisotta (7612), Billy Marshall (9341), Andrea Breckenridge (3113), Bill Dehon (3131) and E.D. Zaffery (9213).

'Visit The Art Museum' This Sandian's Message

"Well, we have good music and good drama in Albuquerque, and it makes sense for us to have good art too."

The speaker is Howard Stump (100) and the subject is the University Art Museum. Or, more precisely, the subject is support of the Art Museum. Howard is newly elected president of the Friends of Art, a 225-member group whose aim is to make this small museum one of the best of its kind in the country.

Why should the average Albuquerquean get excited or even mildly concerned about paintings and sculpture?

"Art is a way of looking at your life, your culture, your heritage," Howard replies. "Most of us react emotionally and intellectually to a good book or a concert recital or even a good TV drama, and gazing at a work of art can produce the same feeling. It's enriching."

With funds raised through memberships and their annual "Buck Bohemia" blast, the Friends of Art help the museum build its permanent collection through purchase of paintings and sculpture. They also help sponsor exhibitions and educational programs in art for the community.

Howard emphasized the Friends' interest in gaining more members (contact him) but,

more importantly, in spreading the word about the University Art Museum. We visited the museum with Howard (it's at the west end of Popejoy Hall on the campus) and came away much taken with the quality of the collection. Louise Lewis is acting Museum Director, and hours are 10 to 5, Tuesday to Friday during the summer. Admission is free.



HOWARD STUMP (100)

• SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER • SHOPPING CENTER •

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

8' SLIDING GLASS DOOR, hardware & screen, \$50; 3 x 5 steel case-ment window, \$10; bumper pool balls, \$6. Kent, 299-8821.

CHAMPION SIRE black miniature female poodle; king-size walnut headboard. Johnson, 298-7356.

BRIDGESTONE trail bike, 100cc, dual sprocket for dirt or pavement, \$150. Peterson, 256-7514.

BLUE '68 Kawasaki, 5600 miles, 350cc street machine, 40.5 hp, w/saddle bags, luggage rack, extra mirror & turn signals, \$450. Barry, 345-2314.

CAMPING EQUIPMENT: tent, Coleman Oasis, 10' x 13', \$90; cots, aluminum-canvas, 3 at \$5 each. Prew, 296-3815.

FRIGIDAIRE elec. range, std. size, white, Westfahl, 298-5087.

BABY ITEMS: jump chair, car seat, crib bumper pads, sterilizer; dual goose neck floor lamp; used golf bag, small. Seiber, 296-2556.

MOBILE HOME, Ranada, 2-bdr., 1970, 1 1/2 baths, fully carpeted in shag; located 529 Elk Dr., Four Hills Mobile Homes Park. Olguin, 298-7102.

CORVETTE sting ray parts, mostly body parts, condition varies, set of front bumper, some engine parts. Fuller, 256-1593 after 5:30.

BLACK MARE, 5 yrs. old, western; sorrel gelding, 9 yrs. old, English & jumping; need experienced riders. Harley, 898-0594.

MAN'S attractive little finger diamond ring, 3/8 carat diamond flanked by four simulated rubies, appraised at \$600. McIlmoyle, 268-6532.

HONDA Trail 90, \$165. Wilkinson, 299-8327.

NORITAKE DISHES, service for 12, \$65; port. elec. dishwasher, \$145; steel china closet w/glass doors, \$30; 9 x 12 rug, \$75. Elbert, 255-9433.

GARAGE SALE, June 18 & 19, 9 to 5, clothing, baby things, Tupperware, misc., Menaul to Morris, north two blocks, 10600 Lexington NE. Miller.

ATLAS battery, 12V A-23, \$20; blow torch w/lattel, \$10; 23" TV, need picture tube; Early American cabinet; movie equip. Eaves, 299-7728.

SKYLINE backpack w/Cruiser frame, \$25. Nielsen, 255-2045.

ANTIQUA CHINA, Haviland Limoges, very old, 120 pieces. Silverman, 298-1308.

ADMIRAL AM-FM stereo, multiplex, hang on wall, use in book case, \$70; 10 x 10 1/2' moss green nylon carpet w/pad, \$30; poodle, \$20; trailer axle, \$40. Campbell, 268-8445.

FREE male hound, housebroken, affectionate, needs rural residence where he can run, good w/children. Gill, 345-1344.

FLASHGUN, Graflex, 5 cell; Porroflex viewfinder for Mamiya 2 1/4; camera case, leather, for Mamiya C-3; tripod, pan head; gadget bag, leather. Alvino, 255-6339.

2-WHEEL utility trailer w/galvanized weatherproof cover & spare wheel. Knudsen, 299-6005.

GARAGE SALE Saturday: practice piano, elec. guitar, tape deck, elec. mixer, typewriter, clothing, twin size mattress & box springs, misc. Richter, 1028 Matador DR. SE.

BICYCLE, 26" boy's Schwinn 3-spd., red, \$30. Parks, 296-2261.

PRINCETT accordion & case, 12 base, cost \$125, sell for \$60. Lewis, 299-0694.

ELECTRICAL HOOKUP for temp. service, includes pole, meter box, 60 amp 220 15 amp 110, & wiring, \$25. Souder, 282-3121.

HALF BORDER-COLLIE puppies, males & females; half Siamese kittens, free to good homes. Case, 282-3769.

TRAILER — camper awning, self supporting, 9 x 9, \$32.50. Johnson, 255-5427.

BOAT, 16' Thunderbird, Cathedral hull, 105 hp, Chrysler outboard, many extras, less than 50 hrs. total, \$2150. Tucker, 877-9405.

CURTAINS and draperies, all sizes, prices from 75¢ pr. to \$2 pr. Laramore, 299-6941.

SEAR'S '69 mini-bike, 2 1/2 HP engine, \$60. McGruder, 255-2078.

AUTO air conditioner, Ford make, complete w/compressor, heat exchanger, evaporator, etc., \$75. Bentz, 299-8362.

FENDER twin-reverb amplifier, \$450 or offer. Lynch, 298-7817.

GIRL'S bicycle, 26" std. Schwinn. Larsen, 299-3496.

GOLF CLUBS: Haig ultra irons, 2-9 plus wedge; MacGregor tourney woods, 1-4; putter, bag, \$130. Harvey, 298-8278 after 6.

'66 STREAMLINE trailer, \$4300. Gleicher, 268-8553.

MATTRESS & SPRINGS, Long Boy, \$25, will deliver. Bodine, 296-3620.

GARAGE SALE — 6/19/71: table saw, bench, complete set Haviland china, camping equip., misc. household items, 3818 La Hacienda Dr. NE. Bailey, 256-2360.

GARAGE SALE — June 19-20: furniture, washer, dryer, household items, clothing, misc. 9408 Dona Rowena NE. England.

ELEC. GUITAR w/case, white Kingston, 2 pickup, \$80. Callahan, 242-5132.

HONDA 175cc trail scrambler, '70 model, \$550. Sanchez, 264-6232.

MINIATURE Schnauzer puppies, AKC reg. Chabai, 299-2328.

3-PIECE SECTIONAL, rose, lg.; bedroom set, 2 dressers & bed; Zenith B&W console TV, needs minor repair. Gault, 296-5675 after 5.

CAMPER shell, alum., fits swb, 26" high, \$100; Stauffer exercise couch, w/instructions, \$50; car top luggage carrier, \$5; rocking horse, \$5. Hitchcock, 299-2581.

DOBERMAN puppies, 7 wks. old, AKC, bred from states best stock, \$75 and up. Ristine, 298-0562.

'68 SUZUKI 250cc, \$350. Tischhauser, 299-2960.

BOY'S bicycle, 20" Schwinn Sting Ray, 3-spd., completely overhauled by dealer, \$37.50, today's new cost \$87. Eagle, 299-4742.

FOR SALE CARS & TRUCKS

BUS for activities or camper, 60 passenger, '54 Ford V8, 5-spd. trans. Anderson, 299-9037.

'63 DODGE DART conv., 6-cyl., new tires - top - brakes, \$400. Greenwood, 255-5155 after 6.

'62 FALCON, worth \$75. Rakoczy, 256-0433.

'58 MG, new top, new paint, \$600. Doherty, 265-0146.

'67 FORD 1/2-ton, 300, 6-cyl., 4-spd., positraction, extra fuel tank, shell. Overmier, 268-4992.

'60 Peugeot 4-dr. sedan, model 403, sun roof, \$175. Swiss, 265-5346.

'69 DODGE Charger, white w/black top, red interior, \$1695. Davis, 294-0139.

'40 FORD 2-dr. sedan, new engine, many new parts, \$450. Tarbell, 255-2940.

'68 DATSUN sport coupe, fiberglass top, tonneau cover, R&H, \$1600. Dehon, 247-8537.

'67 VW sedan, red, NADA \$1100, sell for \$995. Landis, 296-9289.

'67 DATSUN 1600cc convertible, w/luggage rack, \$1250 or trade for pickup truck. Johnson, 255-8242.

'60 CHEVROLET 1/2-ton, 4-spd. trans., rebuilt engine, 6-ply tires, \$400. Benjamin, 842-5730.

'63 CHRYSLER sedan, everything, \$425; '58 International 3/4 ton truck, 4-wd, door latch problems, otherwise OK, \$435. Shunny, 265-1620.

'69 VW CAMPER, pop-top, AM-FM radio, fully equipped, 35,000 miles, \$2900. Perry, 299-6109.

'59 DODGE station wagon, AC, PS, R&H, AT, \$325. Maase, 299-3647.

'63 RAMBLER American, OD, low mileage, 20 mpg, \$350 firm. Roache, 268-4686.

'67 RAMBLER 2-dr. HT, PS, PB, AT, R&H, new tires, 343 engine, less than 20,000 miles, \$1500. Hahn, 268-5475 after 5:30.

'69 VW Bug, radio, a/c, Wheeler, 282-3321.

'64 CHEVY Impala SS, new tires, \$850. Callahan, 299-3273.

FOR SALE REAL ESTATE

TIJERAS CANYON, 5.16 acres, stream, view, close in, good access, \$6500 cash or terms. Wolfe, 282-3890.

FOR RENT

FURNISHED HOUSE, mid. Aug. '71 to July 1, '72, 3-bdr., or 2 & den, 1 1/2 baths, detached 2-car garage, near bases, 2 blocks to elem. school. Peek, 268-9379.

WANTED

SET OF CAMPER JACKS, winch type. Chavez, 864-4791 Belen.

MATURE companion for elderly woman approx. 3 days per week, 11-5, must have car, prefer bridge player. Graham, 265-1363.

HORSE TRAILER, desire lg. single horse or two-horse, also want to buy a good saddle. Souder, 282-3121.

USED HOOVER or Kirby upright vacuum cleaner. Johnson, 255-5427.

RIDE to work from 1637 Cornell SE (near Yale & Gibson). Hendryx, 242-5178 after 5:30.

BABY SITTING in my home, any age, Eastdale area. Morrow, 299-0512.

METRONOME. Bodine, 296-3620.

NEW CONDITION, 9' x 12' external frame tent; Colt 357 revolver or similar. Rea, 299-9315 after 5.

PUSH TYPE lawn mower, working condition. Schroeder, 344-1011.

LOST AND FOUND

LOST—Green trench coat, black sweater, brown address book, '55 AHS class ring, part of pierced earring, silver Kachina doll figure, red scarf, contact lens in container, turquoise earring, 10-yr. bracelet, man's white gold diamond wedding ring, car keys on measure tape-type ring. LOST AND FOUND tel. 264-2757, Bldg. 832.

FOUND—Rx glasses w/black rims, white scarf, sunglasses, gold pencil, "Cross" pencil, brown pipe. LOST AND FOUND, tel. 264-2757, Bldg. 832.

Coronado Club Activities

PETE GALLEGOS (2335), Club entertainment director, was sitting at the north end of the Club the other day smiling through his beard and waving his arms. "Picture this, now," he was saying. "We take three great bands — The Top Three, Freddie Williams and the Screaming Yellow Zonkers, Rod King and the Soul Knights — and we alternate them in the ballroom, the dining room and the patio. We turn the PA up, 'way up. We get the strobe lights flashing. We have happy hour prices inside and outside. We have the troops swimming, dancing and hanging on the ceiling. Man, it will be tremendous."

What are you going to call it, Pete?

A joker suggested "Hanging on the Ceiling with Three Great Bands" and then "Bikini Bugaloo" and "Who Threw the Rock 'n Roll in the Twin Pools" and then. . .

"No, amigo," Pete says. "We will call it 'Soul Session Extravaganza' and ol' Smilin' Jim Noonan will concoct a special barbeque sandwich for the occasion. . ."

You gonna raise prices or anything?

"No, man, I told you. Happy hour prices will prevail. Members get in free and we charge guests 50 cents. You can't beat that any place."

When are you going to throw this blast?

"Next Saturday, June 26. Mark it down," Pete says. "It will go down in history."

* * * *

SOL CHAVEZ, front man for the mighty Duke City Brass, dropped by the LAB NEWS office with questions.

"What's this wildman Bob Banks jazz?" he threw at us. "I know Bob Banks. He's a neat kid — straight, sincere, one of the good guys."

Sol, baby, we never said he wasn't. All we

Events Calendar

June 18-20, 25-27 — "The Lion in Winter," Corrales Adobe Theater, reservations tel. 898-0065.

June 19 — YWCA one-day trip to Bandelier National Monument and Los Alamos. For information, tel. 247-8841.

June 19 — Sandia North Peak, N.M. Mountain Club, leader Jack Peel, 265-0446.

June 19-20 — San Felipe de Neri fiesta, Old Town Plaza.

June 24 — San Juan Feast Day, most Indian pueblos.

June 25-26 — Puppets by Migrant Theater, Old Town Studio, reservations tel. 242-4602.

June 26-27 — Truchas Amphitheater Clean-up — backpack, N.M. Mountain Club, leader Bart Barton, 877-3590.

June 26-27 — Rodeo de Taos, Taos County Posse Arena, Taos, N.M.

June 27 — Mt. Taylor, N.M. Mountain Club, leader Bill Stamm, 255-2640.

June 29 — Fiesta, most Indian pueblos.

July 1-6 — YWCA trip to North Rim of Grand Canyon, Bryce and Zion National Parks, Lake Powell. Tel. 247-8841.



said was that he's a wildman.

"How come you're always plugging that red electronic organ? Do you get a kickback from Yamaha or something?"

No, Sol, the idea of a red Yamaha just tears us up. It's like a trail bike, see, making music.

Sol leans on our typewriter, "Hey," he says, "if I paint my trumpet purple or something, will you give me an extra plug once in a while?"

You want to be a wildman too?

"Why not?"

OK, Sol, baby, here it is:

Sol Chavez, the man with popular purple trumpet, number one guy with the mighty Duke City Brass, a wildman in his own right. . .

"Forget it," Sol says. "Banks can have the image."

* * * *

TONIGHT, a neat Bob Banks will make straight happy music from 6 to 9 p.m. Buffet feature will be southern fried chicken. Happy hours start right after work on Fridays and run with special prices until 9 p.m. Then Yolanda Adent takes over the main lounge for a sing-along until midnight.

Next Friday, the Good Times will be on the bandstand while baked ham tops the buffet menu.

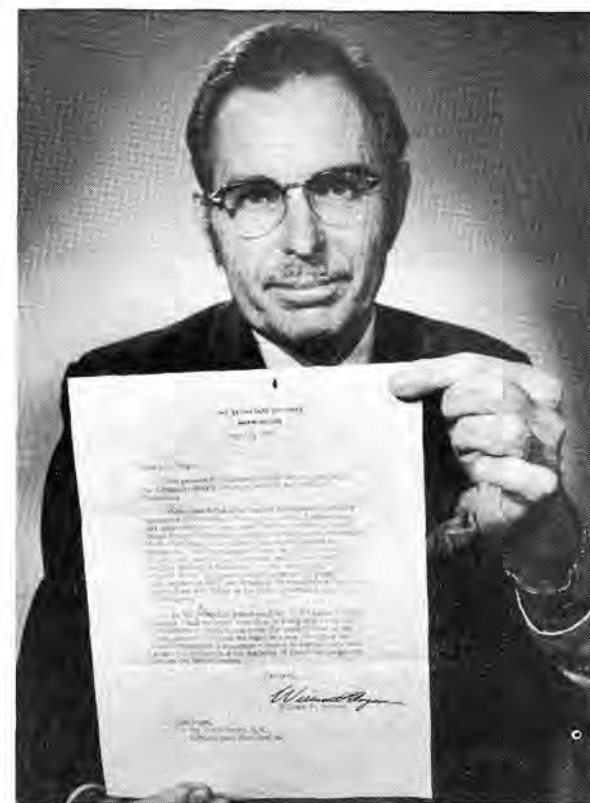
On July 2, Wildman Sol Chavez and the ever-popular purple trumpet will make happy music. Seafood will be spread for the buffet. Enjoy, baby, enjoy.

* * * *

TOMORROW the Coronado Club swim team is hosting an all-day competition for clubs from throughout the state. The twin pools will be closed for recreational swimming but all other facilities in the patio will be available. C'mon out and cheer for our kids. They're doing a great job.

* * * *

TOMORROW NIGHT, teenagers can enjoy a patio pool party and dancing to a group called "PSA." The twin pools will be open for swimming and the snack bar will be open for snacking. Member parents should pick up tickets for their kids and friends.



ALAN POPE, Director Of Aerothermodynamics 9300, is a man known to speak his mind on many subjects, including wind tunnels, finance, and tennis. Now a letter from Alan to the Albuquerque Tribune about the Vietnam War was considered sufficiently compelling to send to the State Department, and Alan displays his reply from Secretary Rogers. Main point of Alan's letter was that we should not lightly overlook vast amounts of materiel — ours — in any pull out from Vietnam.