

TERRY MASON, Development Lab Division 1472, transfers parts between the two sections of the evaporate load system, one portion of which is used for thin-film deposition, the other for deuterium or tritium gas loading.

Process is used in production of neutron generators for weapons and research. (See The Directorates, 1400: Part II on page four).

# **LAB NEWS**

VOL. 30, NO. 23

NOVEMBER 10, 1978

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

## For Navy RV

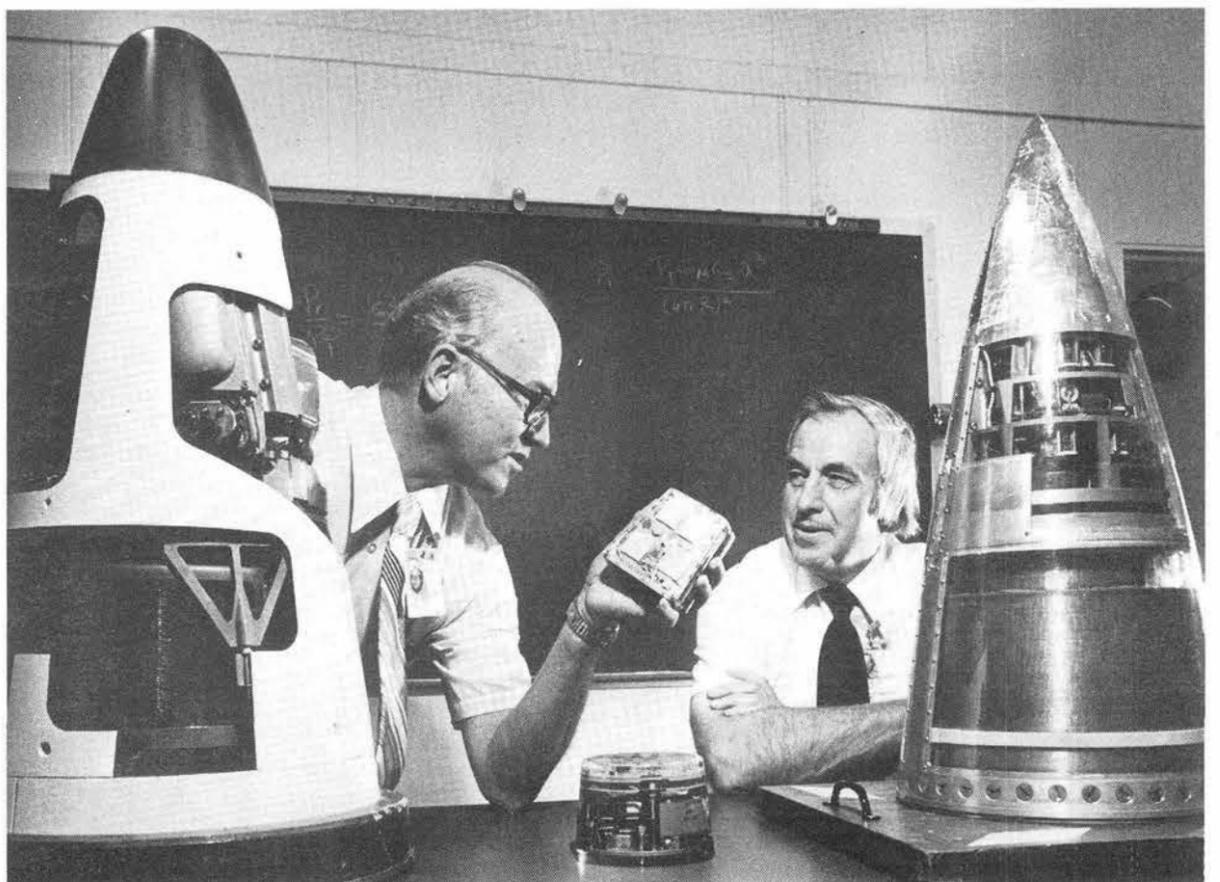
### **Mk4 Radar Fuze: Small & Light**

It's a maxim in missile design that the smaller and lighter your components, the bigger the payload and the greater the distance you can propel it. Which means the radar fuze developed by Electronic Subsystems Department 2340 for the Navy's Trident missile is a real winner.

George Rodgers, who heads 2340, puts it this way: "It's the smallest, lightest, best-performing radar Sandia or anyone else ever designed for RV application." Radar fuzes measure height above ground and send fire signals when detonation height is reached.

The Mk4 fuze is a follow-on to one 2340 developed for the Navy's Poseidon missile back in the 1960's. That fuze was smaller and lighter than anything then available, but George and his staff felt there were still ways to upgrade the system to make it meet the more stringent requirements of the Trident missile.

Well before the advent of the Mk4, the 2340 people were doing advanced radar development. Funds were limited and they referred to the project as "Lazo" (a term  
*(Continued on Page Two)*



GETTING SMALLER, LIGHTER ALL THE TIME. Ray Alls (2341), project supervisor, holds Mk4 radar fuze as he talks to George Rodgers, manager of Electronic Subsystems Department 2340. Earlier radars were hefty items that occupied the middle third of these missile nosecones. Radar on table was a quantum improvement. Single-channel radar in Ray's hand weighs 1½ pounds, occupies 25 cubic inches.



Dennis Hayes (5510), Jim Asay (5534), Aileen George (3417-1) and Al Chavez (5000).

## Supervisory Appointments

**JIM ASAY** to supervisor of Thermomechanical and Physical Research Division 5534, effective Nov. 1. Since joining Sandia in March 1971, Jim has worked with the shock-wave physics group, doing materials properties research. His research has been in three areas: phase transitions under dynamic conditions, response of surfaces during shock loading, and dynamic yield-strength of shock-loaded materials.

Jim earned a BS from San Jose State, an MS from UNM, and a PhD — all in physics — from Washington State University. He is a member of the American Physical Society. Off the job he enjoys camping, fishing and gardening. Jim and his wife Pat have two sons and a daughter and live in Peralta.

\*\*\*

**AL CHAVEZ** to Assistant to Vice President 5000, effective Nov. 1. After coming to Sandia in May 1957 as a radar technician, Al attended UNM under Sandia's EAP and earned a BA degree in business administration in 1965. He was promoted to staff member and became a programmer in the computer directorate. Al then worked as a systems analyst, continuing his studies at UNM. Following his graduation in 1970 with an MBA, Al became an administrative assistant for the materials research directorates (5300/5500). Leading up to his present position, Al has been administrative assistant for the Laser Physics Research Directorate,

Safeguards & Security Directorate and the Waste Management Directorate.

Before joining the Labs, Al served four years in the Air Force in Germany as a radar technician. Off the job he enjoys gardening, camping and kiking. Al, his wife Trinnie and their four children live in the NE Heights.

\*\*\*

**DENNIS HAYES** to manager of Fluid and Thermal Sciences Department 5510, effective Nov. 1

Dennis joined the Labs in 1957 as a graded employee. In 1965, after gaining his BS in physics from UNM, he was promoted to staff member and did work on the shock response of materials in intense radiation environments. He later got his MS and, in 1972 under Sandia's Doctoral Study Program, was awarded a PhD in physics from Washington State University. Dennis was promoted in 1974 to head the Detonating Components Division. Besides responsibility for high explosive components, the division performed high explosives research and does work relating to reactor safety and tertiary oil recovery.

Dennis' outside interests include gardening, black-and-white photography including the associated darkroom activity, fishing, tennis, and backpacking. He and his wife Jan and their two teenage children live in the Northeast Heights.

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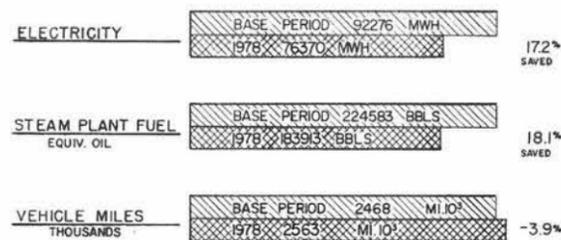
**AILEEN GEORGE** to supervisor of Records Control Section 3417-1, in Shipping and Receiving Division 3417, effective Nov. 1

Joining Sandia in December 1960, Aileen was first a secretary and later transferred to the receiving organization where she has been record clerk and senior clerk. Before coming to the Labs she was secretary and bookkeeper for a local real estate firm.

Aileen enjoys reading and sewing. She and her husband Ben — a rancher — have one daughter and two grandchildren. The Georges live in Bosque Farms.

### ENERGY SAVINGS

COMPARED WITH USAGE IN BASE PERIOD— JULY 1972 THRU JUNE 1973  
CURRENT REPORTING PERIOD ENDING SEP '78



Continued from Page One

## MK 4 Radar Fuze

suggested by a Spanish-speaking secretary who concluded that their working budget most closely resembled a shoestring: *lazo de zapato*).

In 1972, the advanced radar system turned out to be just what Bob Christopher's W76/Mk4 System Division 4335 was looking for. Their design goal was a system that would fit in the 25 cubic inches allowed and weigh no more than 1½ pounds. That meant reducing the volume of the Mk3 fuze by half and the weight by a third without losing any of the Mk3's capabilities.

"Fortunately," George Rodgers told us, "Bell Labs had already developed thin film hybrid microcircuits using beam-lead semiconductor devices, and we were able to adapt their technology to our needs."

Between 1972 and 1977, the radar for the Mk4 fuze went through a number of iterations. About 150 prototypes were built and tested before settling on the War Reserve version. Key people in development were Ray Alls (2341) who had overall responsibility, Chuck Williams (2344), Don Arquette (2342), Bob Onan and Mike Murphy (both 2341).

Gene Ives, manager of Systems Development Department 4330 gave us the customer's viewpoint: "The Mk4 radar fuze is perhaps the most complex part of the weapon. It was available when we needed it and it went through ground and flight tests with flying colors."

## VP Is Honored

Ray Powell (VP-3000) is the recipient of the Outstanding Citizen Award presented by the Albuquerque GI Forum. The award ceremony took place last Saturday before an audience of 300 people.

National Forum Chairman Don Pacheo made the award, which included presentation of an original painting by artist Joel Ramirez. He cited Mr. Powell's close association with the Forum when, as a member of the city and state personnel boards, he helped Forum representatives in their efforts to better working conditions for city sanitation workers and attendants at the state hospitals.

The occasion marked the 30th anniversary of the GI Forum. Vincente Ximenes is chairman of the Albuquerque chapter.

Larry Snodgrass of Quality Control Development and Special Projects Division 1221 died suddenly at his desk Oct. 31. He was 60.

He had worked at the Labs since April 1952.

Survivors include his widow Mary (3440), daughter Nancy (3432) and daughter Peggy Jean.

## Death



The results of a recent Gallup poll make us wonder how much distance really separates modern America from medieval mythology. Here are some sample findings: 54% of Americans believe in angels, 39% in devils, 29% in astrology, 11% in ghosts, 10% in witches. With that as background, let's hear it for scientific rationality. But not too loud, if you please.

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bruce hawkinson & lorena schneider report livermore.

# The Weapon, The Computer: A Symbiotic Coupling

It's a truism: modern nuclear weapons would not exist without modern scientific computers. But it's also true that today's computers derive to a large extent from the demands of the weapons programs. In biology, such a relation is called symbiosis — where close association of two dissimilar organisms proves to be advantageous to both.

This relationship is the theme of a presentation, developed by Ted Gold (8320), Pete Mattern (8342) and others in the weapons complex, which consists of a slide-illustrated talk, a computer-generated movie, and two reports. It was developed following a request for such a presentation by DOE's Major General Joseph Bratton (MA); the need for it grows clear when Ted talks about how the weapon labs get computers: "It's a complex, ponderous, often baffling operation. Computer acquisition has to be justified to every office in Washington — or so it sometimes seems."

"Computer procurement and use are monitored very carefully — more than other resources of far greater cost," adds Pete. "Our goal has been to document the value of computers to the weapons program in a way that's understandable by someone not an expert in the field."

That goal is being met. Says General Bratton, "I believe the report to be everything I had hoped for. It answers the often-asked questions completely and permits the layman as well as the technician to grasp quickly the benefits derived from past and present applications of computers for weapons design and the potential adverse impact of our not having such tools . . ."

Thus far, the reports have been distributed widely and the presentation given before DOE and OMB (Office of Management and Budget) groups and the staffs of the House and Senate Appropriations and the House Armed Services committees. After a look at DOE's nuclear weapon responsibilities and resources, the presentation focuses on the improved performance sought in modern systems. "Here we talk about the need for greater safety and security, for smaller size and less weight, for increased command and control, for greater flexibility, and, of course, for reduced costs," says Ted.

"Our examples show the progress made — the evolution of four generations of warheads for submarine-launched ballistic missiles (Polaris to Trident) is one," says Pete. "We point out that we've continued to make significant advances as we move from one generation to the next and that many of our advances — a MIRVed missile, for example

## SLL Tops LEAP Goal

Final results of the 1978 LEAP campaign show that Sandians at Livermore contributed a total of \$61,536, well over the goal of \$60,000. The figure represents an increase of 5.8 percent over last year's contributions.

The average pledge per contributor was \$71.97, up from \$69.67 in 1977. Employee participation remained at 85.3 percent. Of those participating, 36 give a Fair Share and 148 contribute a LEAP Share.

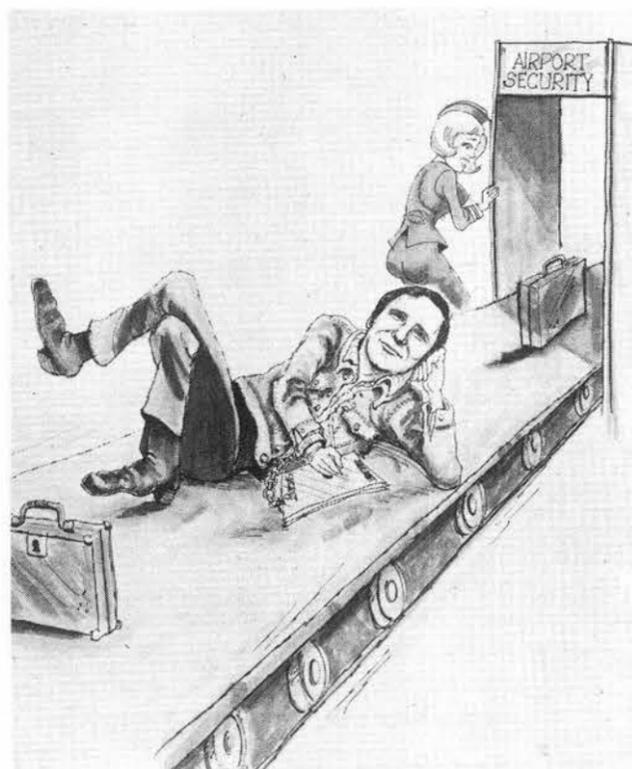
Frank Murar (8345) was campaign chairman. "The response was great. Many thanks to all who helped and who gave. Sandians continue to generously support those in our community who are in need."

# LIVERMORE NEWS

VOL. 30 NO. 23

LIVERMORE LABORATORIES

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**HAVE PRESENTATION, WILL TRAVEL** — Sandia's Gold & Mattern will go anywhere, brave any obstacle to carry their computer message through the Washington labyrinth.

— would have been extremely difficult without sophisticated computer support."

This discussion leads into the crucial role of computers in the design and development of weapon systems. A typical design phase (Phase 3) these days runs over three years, may require up to 10 underground nuclear tests and hundreds of non-nuclear tests, while thousands of hours of computer time are expended. "Without modern computers," says Ted, "we can't be confident we've achieved the safety and performance required."

Computer modeling is the indispensable element in today's nuclear weapon design. This has always been true for LLL and LASL and is increasingly true for Sandia. The computer model of a new design reveals how it will perform without going to the expense of committing the design to hardware. The computer codes that are the basis of this capability are complex, and a typical program takes hours to run, even at a speed of millions of operations per second.

Predicting events that occur in the split-second operation of, say, an explosive valve — some 10,000 time steps — is one illustration of the use of computer modeling. As the cost of testing such components has increased, designers turn to computers to simulate testing, often with substantial savings in time and resources.

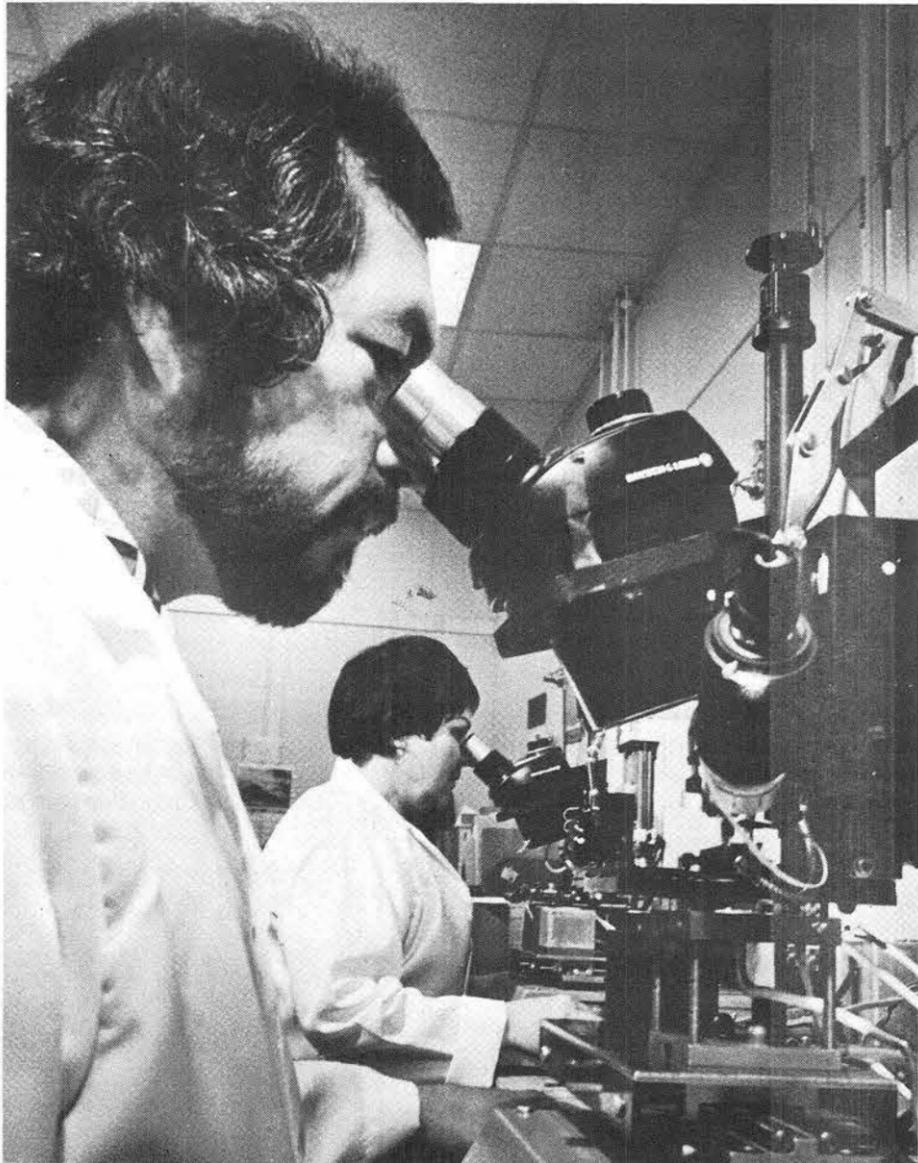
Improvements in weapons demand more and better modeling capabilities and, thus, more capable computers. The better model, with more predictive ability, is generally a more detailed and accurate representation of reality. The trend is toward more accurate representations of geometric shapes — two- or

even three-dimensional (rather than one) — as well as higher resolution in time and space. Notes Ted, "To a great extent, the weapons labs are currently computer limited — existing computers cannot accommodate existing models."

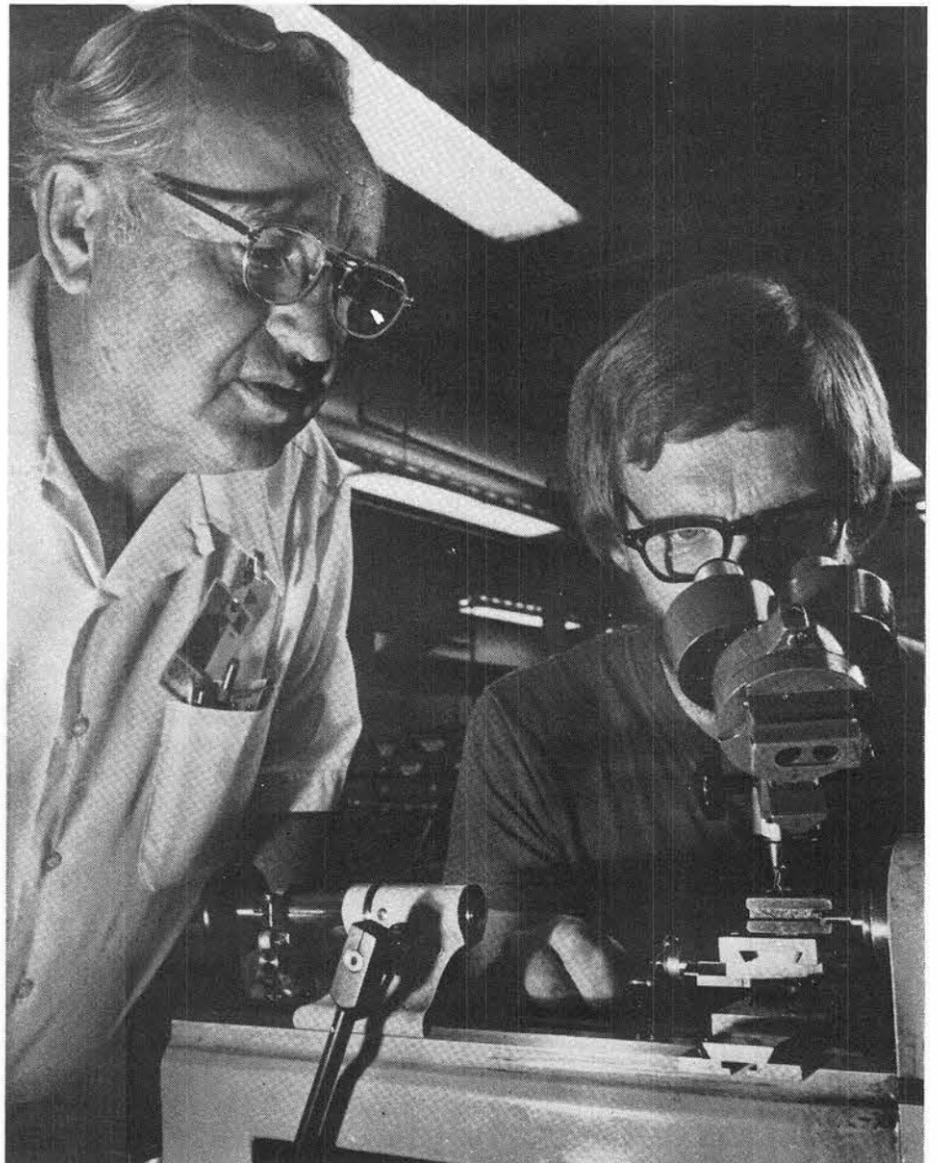
"It would be easy to justify new computers if we could state exactly what weapons improvements will result," adds Pete, "but in our business precise predictions are not possible. Instead, we cite history — advances in computers have consistently been matched by advances in our weapons."

The conclusion of the presentation puts computer costs in perspective: they account for some five percent of the weapon labs' yearly budgets and about 10 percent of their total worth. But less than one percent of the cost of a typical weapons system goes to the computer time expended in its design and testing. And computer technology has significantly outpaced inflation. Thus, while costs of the most advanced computers have remained relatively constant (in current dollars) over almost two decades, their performances has increased by many orders of magnitude. Part of the improvement lies in increased speed — the IBM 704 of the 50's performs about 10,000 operations per second, the CDC 6600 of the 60's 1-2 million, today's CRAY-1 up to 40 million.

The need for this kind of computer power is not confined only to weapons labs. As Ted puts it in a final point, "The nuclear weapons program has probably been the single element most responsible for the development of more powerful scientific computers. These new computers enhance research and development in every field."



ERNESTO MONTOYA AND EMMA QUINTANA (both 1471) assemble hybrid microcircuits using a process called thermal compression bonding. Circuits are roughly the size of a dime, contain hundreds of parts.



FRED HOOPER, third year machinist apprentice, does miniature machining under watchful eye of precision machinist Royce Bewley (both 1481).

## The Directorates

# 1400: Part II: Process/Fabrication Labs

Like most organizations at Sandia, the 1400 Process/Fabrication Labs have undergone great changes over the years.

"We started as shops," Managers Ralph Wilson (1470) and Jack Sublett (1480) told us, "and now we function more like laboratories — labs where we develop processes and make prototypes."

What does this mean?

"Essentially," Ralph Wilson says, "it means there's practically nothing we can't make. Our craftsmen with their equipment can fabricate electronic assemblies and make components from glass, ceramics, plastics, composites, metals. We weld, plate, paint, heat treat, machine, assemble, test and evaluate."

Put another way, the 1400 Process/Fabrication Labs give the design engineers and research people a place to go to have samples or prototypes made — whether they involve new materials, components or systems.

"We're customer-oriented," says Jack Sublett, "just as we would be if we were a private business. Our objective is to provide technical support for Sandia — and that means producing quality products on schedule at minimum cost."

In keeping with this approach, the 1400 Labs make a point of working closely with the customer:

- They keep the individual shops and labs small. Each supervisor is encouraged to operate as if he were the owner of a job shop. Designers are encouraged to follow the day-by-day progress of their projects.

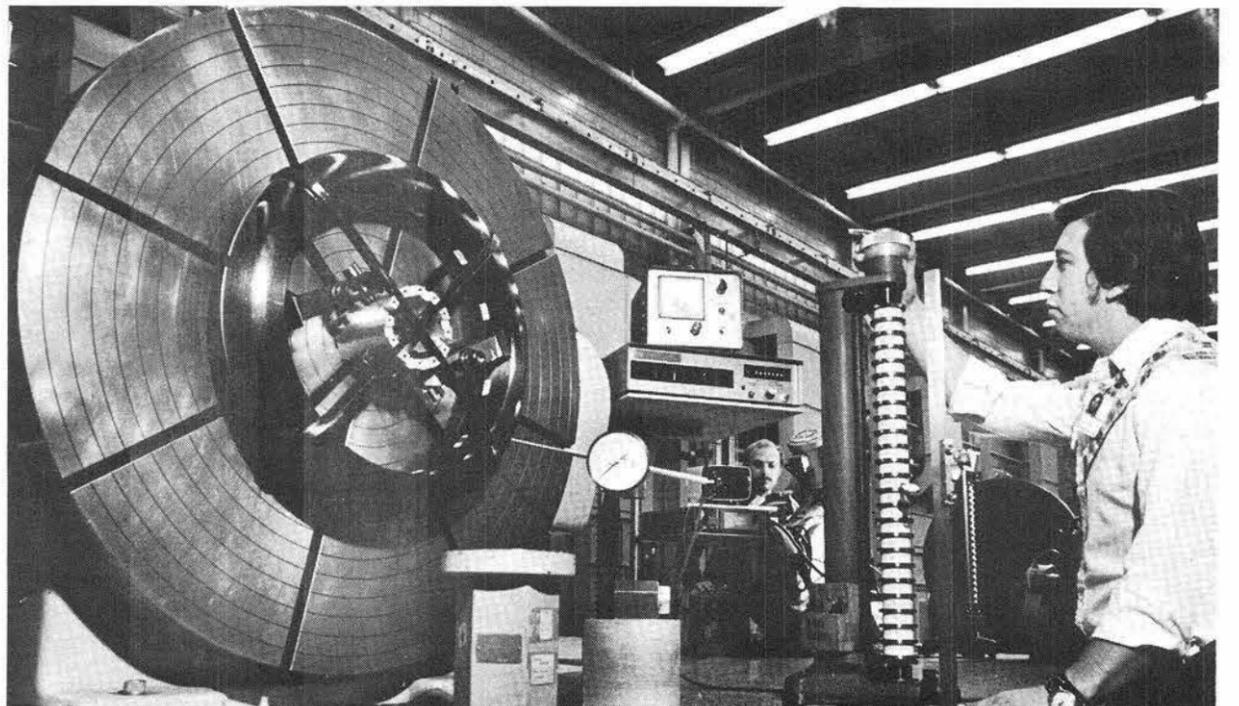
- Orders involving several crafts and special skills are assigned to a lead section which assumes full responsibility for the job — the materials, schedules, costs, quality. If necessary, the lead section subcontracts work to other sections or to outside suppliers.

- Delivery schedules reflect the customer's deadlines. If schedules can't be met in-house, the 1400 Shop Support Division may farm out all or part of the job to outside suppliers.

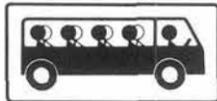
To assure continuity in the crafts, the

1400 Process/Fabrication Labs also run four apprentice programs: Machinist, Mechanical Measurements, Electronic Technician and Materials Processing.

Summing up, both Ralph Wilson and Jack Sublett stress that the current trend of diverting routine work to outside suppliers will continue. "Without increasing our staff," they say, "this frees our people for the classified and more complex work — the jobs that require new developments and new techniques."



FLOYD GALLEGOS (1485), mechanical measurements apprentice, checks experimental flywheel for production accuracy. Flywheel is part of an energy storing project.



## Bus Notes

The City Transit Division is making changes to schedules which will improve peak-hour service to Sandia. Although the changes have to go through a lengthy approval process and may not take place before the first of the year, they seem firm enough at this time to publicize.

Both the regular Wyoming and Wyoming-Sandia buses will be scheduled to make connections with the Candelaria westbound bus. Also, the eastbound Candelaria bus in the morning will be changed to make connections with the Wyoming Special. This should relieve some of the overload on the Eubank bus.

Louisiana-Sandia #33 will be changed to depart Osuna at 7:10 a.m. and arrive at Sandia at 7:45 a.m. The a.m. and p.m. Louisiana buses will discontinue the Winrock Loop and both will make connections with the Comanche buses east and west bound.

The Gibson-Sandia bus will be changed to depart Sandia at 4:40 instead of the present 4:55. Both a.m. and p.m. buses will make connections with the Cross-River buses.

As soon as an effective date can be determined, new time tables will be printed and distributed.

## The Great American Smokeout

The estimated 50 million smokers in the U.S. will be given a chance to find out if they can give up cigarettes for one day. The American Cancer Society's 2nd Annual Great American Smokeout on Nov. 16 is an event aimed at helping smokers quit — at least for the day.

Francine Neff, former U.S. Treasurer, is chairwoman of the Bernalillo County Smokeout Day; Ed Asner, star of the CBS TV series "Lou Grant," is national chairman. These and other ACS volunteers across the country will ask smokers to sign "I Quit" pledge cards.

Pledge cards for a smokeless Nov. 16 are available in the LAB NEWS office, or, at SLL, in The Public Information Office in Bldg. 911.

# Get off your butt.



**On Nov. 16,  
Quit smoking for a day.**  
American Cancer Society

### Sympathy

To George Revels (1471) on the death of his father, Oct. 24.

To David Paul (2165) on the death of his father-in-law, Oct. 28.

To Angie Granger (3152) on the death of her mother, Nov. 6.



SAM GRIEGO (1485) realized a lifelong dream last year when he bought this '63 Bentley made by Rolls Royce. A builder of prizewinning vans, Model A's and pickup trucks, Sam spent a year working on the engine and undercarriage of the Bentley. Now he and Diane Domenici enjoy Sunday afternoon drives. The car, once rented and driven by John F. Kennedy in London, burns only 100 octane airplane fuel (@ 92¢/gal.).

## Take Note

"Exhibition: Flight: Air Racing, Barnstorming and Aerobatics" is the name of the Albuquerque Public Library's latest exhibit, which continues through Dec. 2. The traveling exhibit from the Smithsonian National Air & Space Museum consists of photographs, facsimile documents and several models of historic aircraft. Hours of the free show are 10 a.m. to 5 p.m., Monday through Saturday.

\* \* \*

Ever since Sandia entered the energy business, our visitor traffic has increased markedly. To accommodate the influx, a Visitor Center is on the drawing board, and plans call for a remodeling of the present Science Exhibit Center (the geodesic dome) for this purpose. The Center, administered by Community Relations Division 3163, is now being prepared and should be ready for business by April of next year. It will include, besides a reception area, a 70-seat auditorium where visitors will view a new, 3-screen presentation about the LABS. The Visitor Center operation will accommodate both advance-arrangement and drop-in visitors.

\* \* \*

Free chamber music concerts by the New Mexico Symphony are planned monthly at the Main Library at 5th and Copper NW. They'll be held every second Wednesday, from 7 to 8:30 p.m. Next is the NMSO Brass Quintet and principal harpist, Dec. 13. We'll list the concerts in the Events Calendar.

\* \* \*

The Vocational Clinic of the Rehab Center, an agency supported by United Way, is having an open house next Friday, Nov. 17, from 3:30 to 7 p.m. Purpose is to show the public the capabilities of the clients at the Clinic, who produce craft work in wood, cloth and ceramic materials. The Clinic is located at 2901 Edith Blvd. NE.

\* \* \*

Grand Opening of the Downtown Center for the Arts takes place Sunday, Nov. 12, between 2 and 6 p.m. It's at 216 Central SW, is free, and offers performances by the NM



JIM ALLENSWORTH (4416) was recently appointed Deputy Chieftain of Clan Gregor for New Mexico. A past president of the St. Andrew Society, he invites everyone to a St. Andrew Dinner Dance at the Airport Marina Dec. 2, to the Kirkin O' the Tartan at St. John's Cathedral at 11 a.m. on Dec. 3, and to Burn's Supper Jan. 27 at the KAFB O-Club West. For more info, call Jim on 4-7518.

Brass Quintet, Walter Verardo on the guitar, the UNM Double Reed Ensemble, the Chorus Chamber Players and, to top it off, belly dancing by Mary Kogler. Refreshments will be provided.

# VIP's Attend Briefings

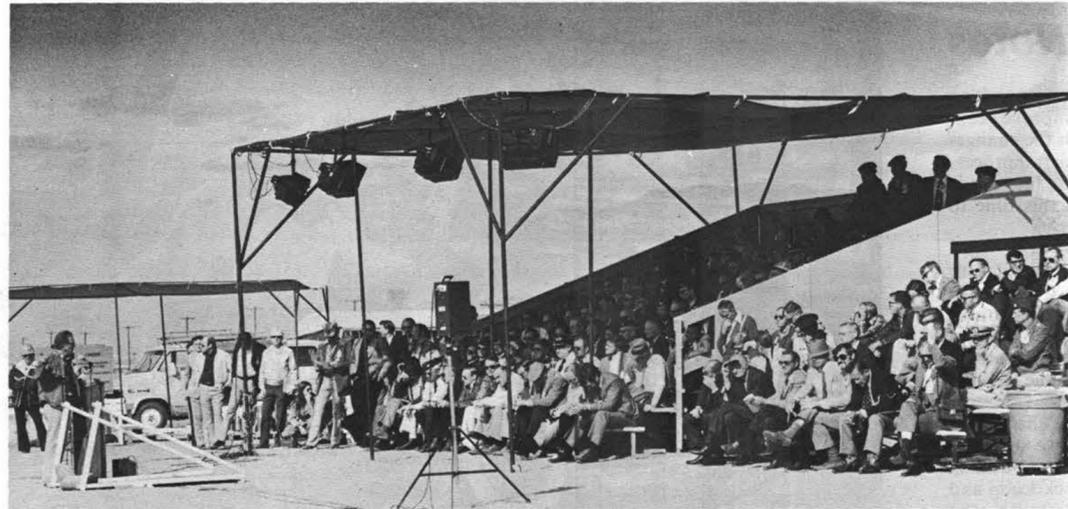
Its formal title was *Nuclear Weapons Safety/Security/Survivability Technology Review*, but the two-day briefing was more familiarly known as The County Fair or, simply, S<sup>3</sup>. Its purpose: to show leading members of the nation's nuclear weapons community how the weapons laboratories are enhancing the safety, security and survivability of those weapons. The review took place at Sandia Oct. 31 and Nov. 1.

S<sup>3</sup> was organized within Bob Peurifoy's Directorate of Weapon Systems Development 4300 in cooperation with the Directorate of Nuclear Security Systems 1700 and the Directorate of Exploratory Weapon Systems 5600. Don Doak, head of Advanced Development Division 4363, carried principal responsibility for setting up and administering the complex schedule, which included theater presentations in Tech Area I and many field demonstrations in and around Tech Area III and Coyote Canyon Test Site.

More than a hundred people attended, among them the recently appointed head of the Military Liaison Committee, James Wade, and other members of MLC. Donald Kerr, Deputy Assistant Secretary for Defense Programs at DOE, gave the keynote address.

President Sparks and Bob Peurifoy made introductory remarks. Presentations were made by: William Scanlin (ELL), Bill Myre (1700), Lyle Edwards (LASL), Don McCoy (4311), William Hubbell and John Delistraty (both LLL), Charles Burks (4310), Don Doak (4363), Milt Madsen (1711), John Kane (1712), Gene Blake (1710), Herman Mauney (1730), Andy Lieber (5160), and Jim Dossey (5614). Major contributions to the success of S<sup>3</sup> were made by Technical Information (3150), Plant Services (3420), Security (3430), Safety (3440), Plant Engineering (3600), and the Development Testing Directorate (1500), as well as by LASL and LLL.

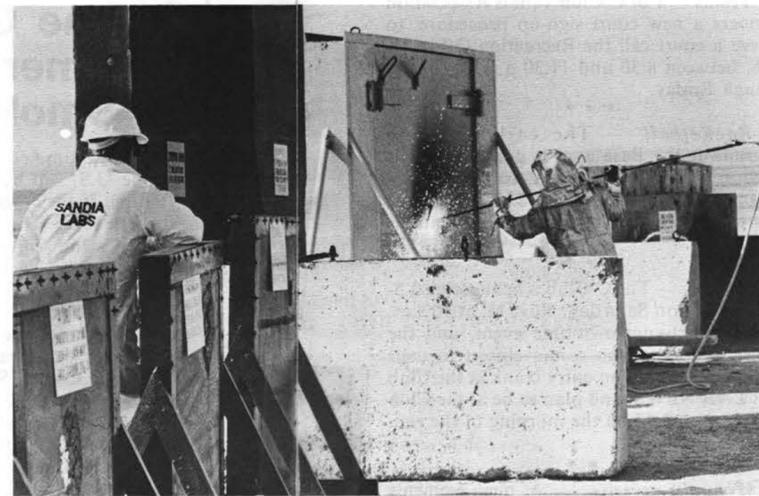
While much of S<sup>3</sup> was classified, LAB NEWS photographer Bill Laskar was able to take these photos dealing with aspects of the Safeguards program.



SAFETY/SECURITY/SURVIVABILITY of nuclear weapons was the theme of the two-day meeting at the Labs attended by this group. Here Milt Madsen of Barrier Technology Division 1711 explains various Safeguards program demonstrations (see below).



SERGEANT GROSS (at right) of the Army's Special Forces demonstrated how missile from shoulder-held LAW weapon will blast open door panel.



LIKE a giant sparkler, the oxygen-fed burn-bar readily cuts through heavy steel doors. It was welded by John Hill (3618). Demonstrations showed that traditional barriers provide minimum protection against determined and knowledgeable adversary.



THE BARRIER looks formidable, but heavy duty wire cutters made short work of it. Attendee peers through opening.



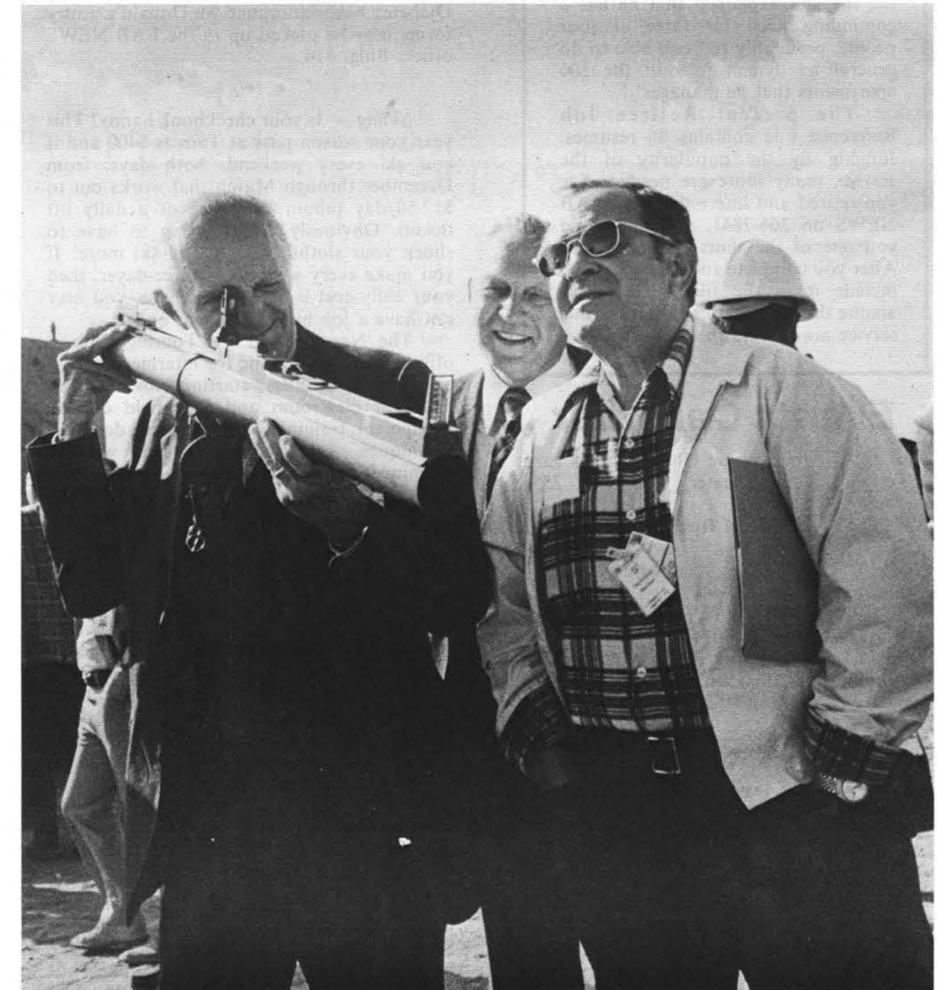
LASER equipped M-16 rifle, held by Frank Briceno (DOE), is used to provide lifelike simulation of combat in training of DOE couriers.



BILL INGRAM (2454) demonstrates stepladder launch over fence. No-touch technique means that fence sensors would not be activated by this type of intrusion.



THE TAFFY MACHINE hasn't gone berserk — it's a demonstration of the sticky foam personnel barrier. Activated by intruder, the stuff quickly occupies protected area, leaves little room for maneuver. Neil Hartwigen, Jack LeRoy (both 1712), and Pete Rand (5813) came up with sticky system.



MORGAN SPARKS takes aim with LAW. The one-shot device is discarded after firing its single integral round.

## Sandians Pledge \$657,825 Total To ECP Campaign

With a total of \$657,825 pledged, Sandia's ECP drive was virtually wrapped up last week. The total is up 12% over last year's total.

Number of employees contributing stands at 86%, up from 82% at the start of the campaign.

Average gift of contributors is \$121. Fifty-three percent of employees are making Fair Share contributions (one hour's pay per month or more).

Calla Ann Pepmueller (3140) is ECP chairman for this year's campaign. She will be succeeded by Gene Blake (1710) for next year's drive.



LITHOGRAPHS and paintings by R.C. Gorman, one of New Mexico's outstanding Indian artists, will hang in the Bldg. 802 elevator-foyer through Christmas. Shanna Cernosek (3254) admires one called "Spider Woman." The exhibit was arranged by Karen Shane of Community Relations Division 3163.

## Attention Retirees

Everyday the LAB NEWS office has several visitors who wish to review the Retiree Job Reference File. The visitors are looking for retirees able to perform jobs in a variety of categories ranging from simple yardwork and hauling to appliance repair, plumbing, cabinet making and other skilled crafts. Just this week, the manager of a realty company dropped by to review the file and explained that he has a continuing need for three or four people, preferably retirees, able to do general handyman jobs in the 300 apartments that he manages.

The present Retiree Job Reference File contains 46 resumes. Judging by the popularity of the service, many more are needed. Are you retired and interested? Call LAB NEWS on 264-7841, and we'll send you one of the short resume forms. After you complete and return it, we'll include it in the file. Incidentally, among the more frequent users of this service are retirees themselves.

## Events Calendar

- Nov. 10 — Albuquerque United Artists Jazz Festival, Kimo Theater, 7-12 p.m., 255-0715.
- Nov. 10-13 — "Day of Resurrection," UofA Stage I, 8 p.m.
- Nov. 10, 11 — "The Shadowbox," Rodey Theater, UNM, 277-4402.
- Nov. 10-12, 17-19 — "A Flea in Her Ear," Vortex Theater, 255-0715.
- Nov. 11 — "Footloose in Newfoundland," Audubon Wildlife Film, Popejoy, 277-3121.
- Nov. 11, 12 — "Auto Fair '79," Convention Center, 266-9575.
- Nov. 11, 12 — "Cat Princess," Albuquerque Childrens Theater, Popejoy, 268-6561.
- Nov. 12 — Feast Day at Jemez and Tesuque Pueblos.
- Nov. 12 — "Observational Astronomy," Dan Fenstermacher, Albuquerque Museum, Sunport, 766-7878.
- Nov. 14 — "Side by Side," UNM Cultural Entertainment Series, Popejoy, 277-3121.
- Nov. 17-19, 24-26 — "Mack and Mabel," Tiffany Playhouse, Sheraton Old Town, 242-0441.
- Nov. 24-26 — "Nutcracker Suite," NMSO and Ballet West, Popejoy, 265-3689.

## Fun & Games

**Biking** — Bike riders have an opportunity to combine pleasure with a good cause on Sunday, Nov. 19, when the Bike-A-Thon Against Diabetes will be held. Eight routes are offered around town, ranging in length from eight to twelve miles, and the prizes include a trip to Disneyland for two, 10-speed bikes, watches, cameras, radios and more. The Bike-A-Thon is sponsored by the American Diabetes Association and McDonald's. Entry forms may be picked up in the LAB NEWS office, Bldg. 814.

\* \* \*

**Skiing** — Is your checkbook handy? This year your season pass at Taos is \$400 and if you ski every weekend, both days, from December through March that works out to \$12.50/day (about the price of a daily lift ticket). Obviously you're going to have to shuck your slothful habits and ski more! If you make every weekend a three-dayer, then your daily cost is \$8.33. Of course, you may not have a job by the season's end . . .

The New Mexico Ski Touring Club is offering a touring clinic for intermediate and advanced X-C skiers, starting Nov. 21, that has four classroom and four field classes. Equipment, training, waxing, up and downhill techniques, and kindred subjects will be examined and practiced. Cost is \$25, and retiree Guy Coburn on 268-6844 is handling arrangements.

\* \* \*

**Running** — Roadrunners are meeting on Sunday, Nov. 19, at 1:30 p.m. at Kit Carson Park (Kit Carson & Iron Ave. SW) with a variety of events for runners of all skill levels and sexes. Non-members are welcomed.

A reader sends a clipping on running from, of all places, *Better Homes & Gardens*: "When depressed people are jogging or running, they lose that characteristic anxious, crestfallen, angry look," says Dr. John Greist, a psychiatrist at the Univ. of Wisconsin. Sure Doc, but don't they exchange it for that woebegone, glassy-eyed, and desperate look?"

\* \* \*

**Soccer** — Professional soccer comes to town Sunday, Nov. 12, at the Duke's Sports Stadium when the Dallas Tornados play the local All Stars. The game starts at 2 p.m., but some preliminary games will feature, possibly, female players from the Labs. The prelims start around 11 a.m.

**SCUBA Diving** — Do you want to? Then contact the C-Club's Bob Giersberg on 4-8486. Bob will set up a class in the subject if enough are interested.

\* \* \*

**Tennis** — For C-Club Tennis Association members a new court sign-up procedure: to reserve a court call the Recreation Office, 4-8486, between 8:30 and 11:30 a.m., Monday through Friday.

\* \* \*

**Racketball** — The early morning program at the Base gym is going well, but more players are needed to insure its continuance. It's 6 to 8 a.m., \$2/hour for the court, the lowest price in town. Reservations on 4-8486.

\* \* \*

**Running** — The C-Club is sponsoring a 5-mile fun run on Saturday, Nov. 18, at 10 a.m. It's a predict-your-own-time event, and the winner is he/she who comes closest to their prediction. Pick up an entry blank at the Club or at LAB NEWS, and plan to be at the Club no later than 9:45 on the morning of the run. There is no fee.

\* \* \*

**Women's exercise** — A new women's exercise class starts Nov. 14. Join by coming to the C-Club on that date at 4:45 p.m. Janet Colvet is the instructor.

\* \* \*

**Basketball** — Men's basketball winter league play begins Nov. 27. If you want to play, call Bob Giersberg on 4-8486.

\* \* \*

**Bowling** — SBA bowlers of the month for September are Juan Vigil - 669(S), Bob James - 715(H), Susan Peppers - 627(S), and Dee Schumpert - 671(H).



The Naval Supply Systems Command recently published 13 rules for good writing. We quote them (without comment):

1. Don't use no double negative.
2. Make each pronoun agree with their antecedent.
3. Join clauses good, like a conjunction should.
4. About them sentence fragments.
5. When dangling, watch your participles.
6. Verbs has to agree with their subject.
7. Just between you and I, case is important to.
8. Don't write run-on sentences they are hard to read.
9. Don't use commas, which aren't necessary.
10. Try to not oversplit infinitives.
11. Its important to use your apostrophe's correctly.
12. Proofread your writing to see if any words out.
13. Correct spelling is esential.



EVERY ROOM OF THE LIBRARY housed in Ernie Pyle's home is floor to ceiling with books — even the closets. But with the hand-made furniture and the comfortable chairs the effect is still home-like.



ERNIE PYLE'S WIFE WILLED the only home the couple ever owned to the city in 1945 — as a memorial to the famous war correspondent. Dedicated as a branch library in 1948, the 30-year old library is still one of the city's most popular.

**Our Town**

**Ernie's Place — 30 Years Without Faltering**

For a man who spent so few years of his life here, Ernie Pyle left Albuquerque quite a legacy. For one thing, he left us the only home he ever owned. It isn't very conspicuous — just a modest white house with green trim that's tucked back in the trees at 900 Girard SE.

It was willed to the city in 1945 by Ernie's wife as a memorial to Ernie, who died in the waning phase of World War II from a blast of machine gun fire on a tiny island off Okinawa called Ie Shima.

The city dedicated Ernie's home as Albuquerque's first branch library in 1948, and last month the library celebrated its 30th anniversary.

Most of the library's clientele comes from the neighborhood — kids who gain access to the children's collection through a private entrance into the carport Ernie converted to a den; high school and college students doing research in the living room; retired folks browsing through the fiction section. Every room in the house is filled with books (even the closets), and still it's a homey place where the librarian, Sandy Masson, calls you by name on your second visit.

And there are memorabilia there, too, like the bronze bust Jo Davidson did in New York after Ernie came back from Europe too weary to any longer report the footsoldier's story of the war. That was in 1944, after Ernie had already won the Pulitzer Prize for distinguished war reporting.

No one ever looked on Ernie as a quitter, but he was sensitive enough to the fact that he was leaving while others fought on that he felt compelled to explain in his last column from Europe why he was coming home:

" . . . I am not leaving because of a whim, or even especially because I'm homesick. I am leaving for one reason only — because I have just got to stop. . . . I have been 29 months overseas since this war started; have written about 700,000 words about it; have totaled nearly a year in the front line . . . my spirit is wobbly and my mind is confused. The hurt has finally become too great. All of a sudden it seemed to me that if I heard one more shot or saw one more dead man, I would go off my nut. And if I had to write one more column I'd collapse. So I am on my way."

You'll find other mementoes of Ernie's

life in the library, too — one of his notebooks, the goggles he wore through the windy African campaign, the Coleman stove he cooked his combat rations on. His Doctorate of Letters from UNM is there (and his Doctorate of Humane Letters from Indiana). The original draft of his article "Why Albuquerque?", written for the New Mexico magazine, is laid out under a clear plexiglass tabletop in the living room next to a letter from Dwight Eisenhower. And there's a photo of Ernie digging a foxhole outside a tent in Sicily and another of him slogging along with the Marines on a Pacific patrol.

Ernie was four months short of 45 when he was killed. He'd seen a lot of war, and the last column he wrote was about death — about the death of a correspondent friend who died of a heart attack on Guam. Here are the final two paragraphs:

"The wear and weariness of war is cumulative. To many a man in the line today fear is not so much of death itself, but fear of the terror and anguish and utter horror that precedes death in battle.

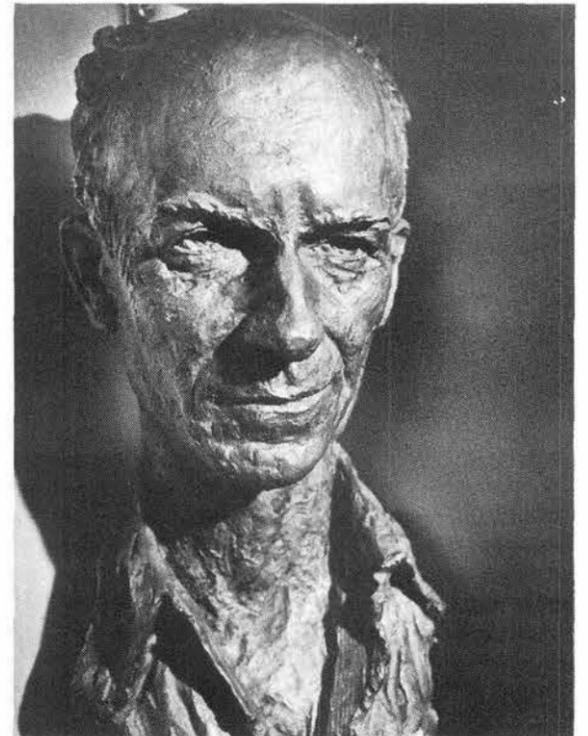
"I have no idea how Fred Painton would have liked to die. But somehow I'm glad he didn't have to go through the unnatural terror of dying on the battlefield. For he was one of my dear friends and I know that he, like myself, has come to feel that terror."

\* \* \*

Looking over Ernie's manuscripts, reading his columns (which by his own admission contained "everything I know, see, feel, hear, think, read or even dream") one comes to the conclusion that Ernie Pyle, like so many others, found something in the Southwest (Albuquerque, especially) that may have helped sustain him in the brutal days of the war.

In his article, "Why Albuquerque?" (a question his incredulous Eastern friends were fond of asking) Ernie described his feelings for the Southwest as a "deep, unreasoning affection. I guess it's like being in love with a woman. You don't love a woman because she wears No. 3 shoes or eats left handed or has a diamond set in her front tooth. You just love her because you love her and you can't help yourself."

The reporter in him wouldn't let that general statement stand unsupported. Ernie dug deeper and became more specific: "We



THIS FAMOUS BRONZE BUST by sculptor Jo Davidson was done after Ernie returned from 29 months in Europe reporting the war. It rests in a niche in the living room of the Ernie Pyle Library.

like [Albuquerque] because our front yard stretches as far as you can see, and because old Mt. Taylor, 65 miles away, is like a framed picture in our front window . . . We like it because the meadow larks hidden in the sage across the road from our house sing us awake in the summer dawn . . . We like it because the sky is so bright and you can see so much of it. And because out here you actually see the clouds and the stars and the storms instead of just reading about them in the newspapers. They become a genuine part of your daily life, and half the entire horizon is yours in one glance just for the looking, and the distance sort of gets into your soul and makes you feel that you too are big inside."

\* \* \*

Ernie is buried in the Punchbowl, the National Memorial Cemetery in Honolulu. A lot of people visit his grave every year. A lot more visit his home in our town. Librarian Sandy Masson puts it this way: "I think they come just to feel close to Ernie." And it's true. In that modest house with the green trim, you do feel closer to him.

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**MILEPOSTS**  
**LAB NEWS**  
**NOVEMBER 1978**



Jack O'Conner - 8314 10



Thurlow Caffey - 1584

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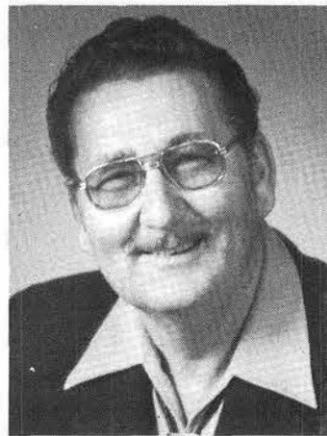


James Stoever - 4212

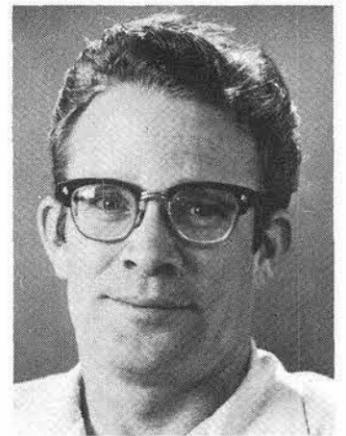
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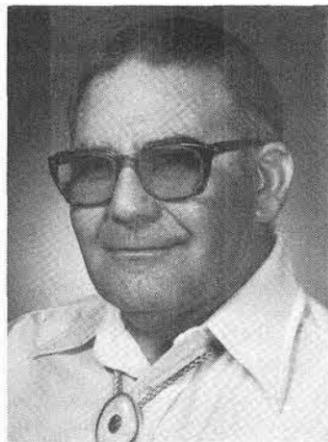
Helen Stake - 4500 15



Lloyd Rothacher - 8257 20



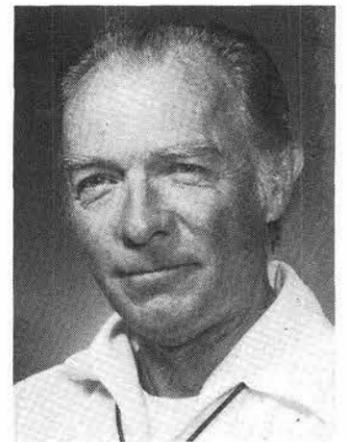
Tom Hobart - 1481 15



Paul Montoya - 5512 30



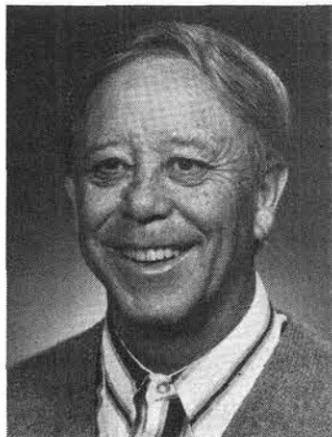
Allan Sattler - 4512 15



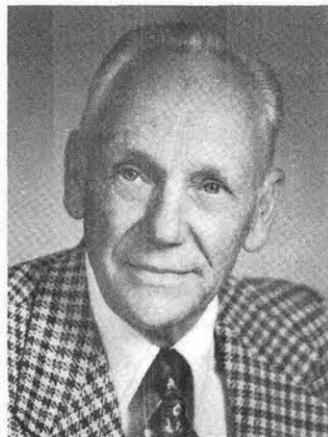
James Rogers - 1526 25



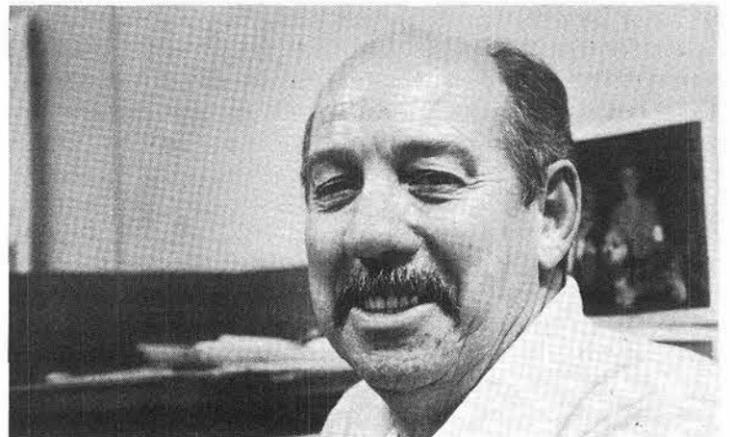
Kathleen Gallegos - 1135 10



Nick Perea - 1545 30

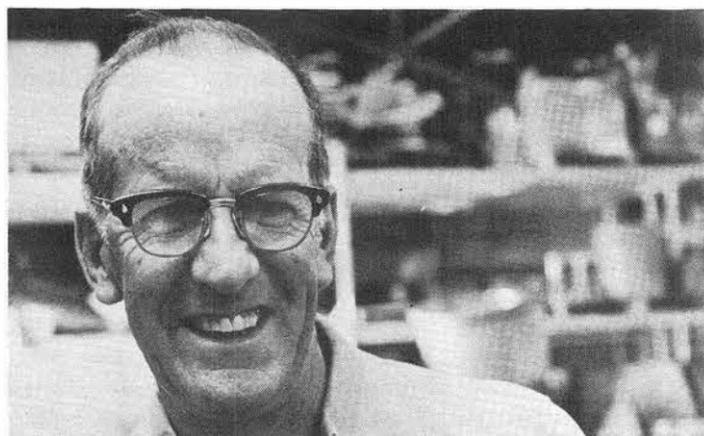


Chuck Shinneman - 8413 20



Ed Jenkins - 3242

20

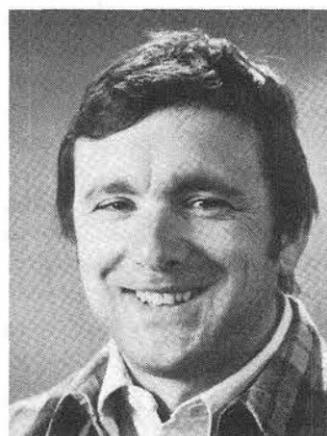


James Jackson - 3413

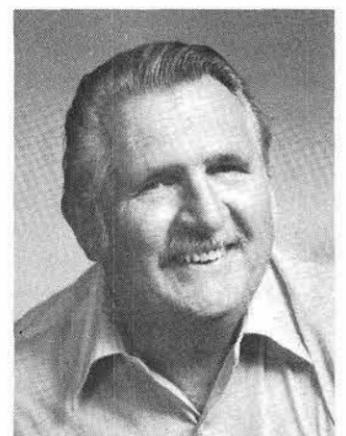
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John Teodoro - 8351 10



Alan Toepfer - 4242 10



Walt Young - 8423 20

# feed **back**

*Q. It was nice to be able to take advantage of our pleasant climate by eating outside at the old cafeteria. Any plans for an outdoor eating area at the new cafeteria?*

A. At the present time there are no plans to provide an outside eating area at the cafeteria. The only available space would be to the east of the building which would require crossing the line of incoming customers. The bussing of dishes would also present a problem. At Building 839 we used disposable goods; now we are using china and silverware.

Plans are in progress to landscape south of the cafeteria from 12th Street to Gate 6, adding more trees, shrubs, and paving.

R.W. Hunnicutt — 3600

*Q. When is a modern elevator system scheduled for Bldg. 802? The present ones are slow and apparently do not have a proper "call" system. When a "call" button is pushed, a great many times both cars arrive or neither, as both*

*have gone to another single floor. I would suggest the cars in a new system not be equipped with emergency stop switches. Currently the switches are used to hold a car while an individual tries his luck at the coke machine. Meanwhile other people on floors wait.*

A. The elevators in Building 802 are old and we have an active project to replace the door operators and to upgrade the controls. The control system is complicated but is designed to maximize the availability of the two cars. A call button is not supposed to summon both cars from other locations — only one car should respond. However, if both cars are on the same floor, the call button on that floor will open both doors.

Emergency stop buttons are a code requirement. Along with you, we deplore the fact that some people use the emergency stop to take an elevator out of service to suit their personal needs.

R.W. Hunnicutt - 3600

## Authors & Speakers

J.A. Borders (5823), "An Introduction to the Principal Solid State Techniques for the Study of Materials Implanted to High Concentrations," and "Precipitation Processes in Nonmetallic Materials," NATO Advanced Study Institute on "Site Characterization and Aggregation of Implanted Atoms in Materials," Sept. 10-23, Aleria, Corsica.

R. Bebrich (IPP), R.S. Blewer (2353), J.A. Borders (5823), R. Langley (ORNL), J. Roth and V.M.U. Scherzer (both IPP), "Trapping and Release of Deuterium in Beryllium Oxide," International Conference on Ion Beam Modification of Materials, Sept. 4-8, Budapest, Hungary.

J.A. Borders (5823), "Applications of Surface and Near-Surface Analysis Techniques at Sandia Laboratories," Technical Forum, 3M Central Research Laboratories, Oct. 27, St. Paul, Minn.

J.M. Hueter (3521), "Motivation Through Creativity," Four State Regional Leadership Conference, Camp Fire Girls, Oct. 14, Albuquerque.

W.J. Spencer (8100), "Progress Towards Development of a Bionic Pancreas," Applied Physics Laboratory, Johns Hopkins University, Oct. 27, Laurel, MD.

\*\*\*

B.W. Duggin, M.J. Forrestal and R.I. Butler (all 5233), "Impulse From An Electrically Exploded Etched Copper Mesh," Vol. 16, No. 8, AIAA JOURNAL.

R.G. Kepler (5810) and R.A. Anderson (5815), "Piezoelectricity and Pyroelectricity in Polyvinylidene Fluoride," Vol. 49, No. 8, JOURNAL OF APPLIED PHYSICS.

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

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3. Submit in writing. No phone-ins.
4. Use home telephone numbers.
5. For active and retired Sandians and ERDA employees.
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.

### MISCELLANEOUS

TRASH BAGS, city approved, \$4/box, \$20/case of 6, South Hwy. 14 Project. LAB NEWS office, Bldg. 814.  
SHOT SHELL reloader, Bar model 405 "Honey Bair", 12 ga., \$30; bed frame w/ casters, \$20. Stang, 256-7793 after 5.  
MINIATURE Dachshunds, AKC reg., 2 red — 1 male & 1 female; 2 black & tan — 1 male & 1 female, \$100 ea. Ashbaugh, 1-384-2665.  
TRUNDLE BEDS, 38"x76", lower bed has pop-up-&-lock feature, \$100. Coalson, 298-0061.  
MR. & MRS. CHAIRS, gold, stripe velvet, \$50 ea. or \$90 for pair. Carter, 296-4127.  
7' BAR w/4 high-back stools, \$250; lamps; furniture; clothes, misc. Hopper, 292-3059.  
AKC GERMAN SHEPHERD pups, 1 female, \$25; 3 females, \$35 ea., 1 male, \$50. Martinez 821-8692.  
JAPANESE RIFLE, 31 gauge w/bayonet; 1923 410 shotgun. Moulds, 247-8433.  
2 10x16.5 MUD & SNOW TIRES, 1/2 tread remaining, \$50/pr. Nogales, 247-1178.  
IBM SELECTRIC TYPEWRITER, 15" carriage, elite type, elite & script elements, \$450. Voelker, 296-0991 after 6.  
MEN'S SKI BOOTS, top of the line Dolomite, size 9, \$50. Peet, 294-1250.  
TRIM RINGS, 13" wheels, \$35. Dippold, 821-5750.  
RUGS; luggage; square dance dresses. Joseph, 268-5414.  
FIREPLACE SCREEN, brass w/andirons, size 31 x 38 outside dimension, mesh curtain w/draw chain, \$30. Henry, 266-6467.  
HART KNIGHT 195 cm skis; Nordica 8 1/2 boots; Cubco bindings w/skidder plate, \$60. Kane, 298-1717.  
8' CAMPER, sleeps 2, ice box, \$300; firewood, you pick up \$50/cord, deliver \$65/cord. Baca, 293-8056.  
SEARS 6 1/2' Mt. Fir Christmas Tree, \$10. Robertson, 299-7561.  
BROWNIE UNIFORM, size 14 blouse,

jumper, beanie, tie & belt, \$8; womens boots, size 5, black, waterproof, lined, side zipper, \$4. Waite, 867-5953.

CHILD'S folding table & 4 chairs, \$12.50; antique combination bookcase secretary, \$25. Kaye, 293-0499.

REMINGTON auto. shotgun, Model 1100, gold engraving, 20 ga., \$190 or best offer. Wilcoxon, 296-8295.

S.S. double sink w/washerless faucets, \$20; Frigidaire elec. oven, \$80; stove top, \$25; Playskool wooden puzzles \$1 ea; Discoware. Westmark, 296-0198.

4 EA. 9:75x13 racing tires; several pr. ladies boots & shoes, size 9-10. Tennant, 294-1347.

MOTORCYCLE accessories, used: Yamaha 100/175cc Enduro; heavyduty bash plate, Allenhead case bolts, sawtooth footpegs, Buddy seat w/footpegs, levers. Schkade, 293-7453.

LAWN SWEEPER, Sears, 26" width, \$12. Drake, 299-1209.

RUG, lt. green shag, approx. 9x12, \$25. Garst, 299-5870.

NATIONAL GEOGRAPHIC magazines, 1913-1978. Young, 255-8193.

PUPPIES, Chow-Chows, AKC reg., \$150, 6 wks. old, Nov. 4. Smith, 299-5060.

FIREPLACE screen w/andirons, black w/brass trim, covers openings up to 30"h x 37"w, \$20. Erickson, 296-0126.

ALUMINUM STORM DOOR, complete w/frame & mounting hardware, right hinge, prehung, 37 1/2x81 1/2 overall, \$25. Thorne, 255-4875.

SELL OR TRADE: Remington 870 TB 12 gauge trap gun, \$185. Stuart, 299-9190.

CRAIG AM FM stereo, 8 track, pushbutton car radio, quadrasonic, 3 mos. old, \$75. Esch, 292-0754.

REMINGTON 1100, shotgun w/2 barrels, \$270; heavy-load No. 6 shells, \$3.75/box. Brammer, 266-5158.

PAINTER'S O'alls, size 36x30, 2 for \$12; Chilton's book for 1970-76 Maverick/Comet; sabre saw, single speed; rockhound scoop, \$5 ea. Ridlon, 298-4729.

14' ALUM. cartopper boat, rated for up to 15 HP, 600 lb. capacity, \$245. Allen, 869-6680.

CANON 110ED w/flash, \$75; Collier baby stroller, \$18. Keck, 294-2887.

8" TRIPLE-wall chimney pipe, 30" elbows & cap. Edenburn, 869-2911.

"MISSOURI BLACK WALNUT" lumber, rough-cut & dried, \$1.50 per board foot, lg. selection. McCoy, 821-2509.

REESE trailer hitch parts: 2 torsion bars; 2 1/4" ball mount w/ball, retail \$160, sell for \$50. Gregory, 268-2022 after 5.

15' COMET sport trailer, butane stove & light. Sheaffer, 255-9473.

ANTIQUe solid mahogany Duncan-Phyfe drop-leaf dining table & 4 Windsor chairs. McCallister, by appointment 255-2890.

GOLD CARPET, 10'6" x 15'6" & 10'6" x 12'2", pad included. Adams, 821-5801 after 6.

TEXAN shotshell autoloader, 12 ga., powder, wads, shot, primers, cases. Baughman, 299-3785.

2 CHESTS OF DRAWERS, \$5, \$25; 2 Danish chairs, \$15 ea., 2/\$25; planter pole, \$5; cherry wood bed w/mattress, \$50. Young, 256-9158.

HIDE-A-BED COUCH, blue-green, 80" wide, \$110; infant carrier, \$6; infant potty seat, \$3. Sublett, 298-1004.

ELECTRIC RANGE, \$50; Humidifier, \$15. Marder, 268-9643.

NORGE gas dryer, \$45; white single bed frames, \$30 ea. Bailey, 296-2097.

ELEC. RANGE w/self-cleaning oven, \$195; desk, \$100; ping pong table on rollers, \$25. Hughen, 296-2600.

BOY SCOUT JACKET, red wool, size 14, \$12. Steven, 296-6326.

HOT AIR balloon pictures, 8"x10", 5"x7". Garcia, 881-4296.

### TRANSPORTATION

'76 COMET 4-dr., 25,000 miles, 6-cyl, air, AT, PS, \$3250. Coalson, 298-0061.

'77 JEEP CJS Renegade, B04 V8, 27,000 miles, AM-FM radio, PS. Walla, 299-2209.

BICYCLE, ladies 3-spd., \$25. Coleman, 299-2377.

'75 HONDA TL125, purchased new in '76, \$425. Ogle, 296-7125.

'75 MOBILE TRAVELER, 18 1/2", self contained, 318 Dodge, CB, radio, cassette, \$7450. See weekend pm. Lanone, 877-0915.

'73 VW bus, \$2595. Thompson, 299-0092.

'67 T-BIRD, 4-dr., 55,000 miles, new paint & vinyl top. Rhoden, 293-5301 after 5.

'72 INTERNATIONAL 3/4 ton pickup camper special, AT, AC, PB, PS, Cruise Control, aux. tanks. Positraction, stereo, AM/FM, 8-track. Rayner, 821-5534.

'75 OPEL 1900 2-dr. sedan, AM/FM radio, AC, 35,000 miles, \$2450. Strassel, 298-3816 after 6.

'73 FIAT sport sedan, bucket seats, front wheel drive; cash for Ford Mustang, Granada or Maverick. Smitha, 881-1001.

GO CART, as is, \$25. Berg, 299-5640.

'72 AMC HORNET SST, 4-dr. sedan, AC, low mileage. Rizkalla, 243-4941 10 a.m.-6 p.m. weekend.

'74 DATSUN 260Z, 21 mpg in town, 27 hwy., AC, AM-FM, new tires, \$300 below book. Hymes, 243-4198.

'78 YAMAHA YZ125E dirt bike, motorcycle, never raced, adult ridden.

McDaniel, 296-8073.  
FORD 8N tractor w/hydraulic PTO & front end loader, engine needs work, \$1200. Barnaby, 265-4353.

'73 SUZUKI GT750, bags, fairing, luggage rack, maintained, \$800 or best offer. Wilcoxon, 296-8295.

BUS CAMPER, 327 engine, GMC frame, w/lift for handicap, forced air heat, AC, shower/toilet, carpeted, 6 new tires. Chavez, 877-1437.

10-SPD AMF BIKE. Tennant, 294-1347.

'66 DATSUN pickup, 520 engine O/H, 2586 miles, dbl. gas tank, 4-spd., shell, carpet inside, \$975. Williams, 266-6724.

10' SPD. MAN'S bike, 26" wheels, 21" frame, \$70. Horton, 298-4449.

CURRENT EMMICK racing go-kart, \$500, engine, pipe, clutch available; new racing kart parts at near cost. Hansen, 898-3173 after 6.

DATSUN pickup, kingcab, 5-spd., custom wheels, camper shell, AM/FM cassette stereo, \$4000 or \$1350 cash & assume payments \$119/mo., 22 months. Work, 821-9107.

'73 VW BUG, Super Beetle, AM/FM, new generator-battery-2 new tires, 1600 cc, stock, yellow. Lewis, 299-9246.

'71 FIAT Spyder, convertible, new paint, 35 mpg, \$895. Rarrick, 296-2340.

'66 MUSTANG 289, stick shift, orig. owner, \$1500. Heckman, 298-3116.

'62 CHEV. stakebed, 14,000 GVW, hydraulic lift gate, new engine, \$1995. Hibray, 821-3455.

'75 IMPALA, 4-dr., PS, PB, AC, Cruise Control, almost new radials, \$2200, Delco AM/FM, 8-track, \$150 additional. Adams, 821-5801 after 6.

'73 PONTIAC Catalina, low mileage, many extras, new tires, \$1850. Morrison, 877-7425.

'72 MAVERICK 2-dr. six, std., engine needs work; '75 International pickup, 4-wd, low mileage, V-304, H.D. Dillon, 881-3843.

'75 SUPERIOR motor home, 20', 440 Dodge, 26,000 miles, 4KW onan, new tires. Cook, 281-5689.

70'CHEV. 4-dr. Impala, 7 mo.-old-battery. Stoever, 296-3717.

'66 VW squareback, driveable but needs clutch & body work, \$300. Hughen, 296-2600.

'70 SCOUT, 304, 4-spd. trans., 67,000 miles, roll bar, Halogen lights, extras, \$2400 or best offer. Perez, 898-3002.

### REAL ESTATE

2-BDR. HOUSE, LR, den/fp, fenced yard, 1300 sq. ft., near base, \$31,500, 4713 Gibson SE, Vigil, 268-5793.

.2150 SQ. FT., 2-bdr. home, 20x43 den, 2 baths, single garage, covered patio, some furniture, appliances. Lassiter, 298-2461.

3-BDR. ROBERSON, LR/DR, paneled den w/fp, 2-car garage, pitched roof, utility room, cfa, below market, \$52,000. Sisson, 292-2046.

### WANTED

POGO BOOKS, Furry Freak Brothers comics. Hansche, 281-5623.

PORT-A-CRIB. Fitzmorris, 266-6785.

'65 MERCURY Comet shop manual. Horton, 298-4449.

WOODWORKING TOOLS: hand saw, sanding equip., router; also hand tools. David, 255-7230.

SHARE RIDE from Rio Rancho, Star Heights sub division, carpool with several people desirable. Bolwahn, 264-8821.

FACTORY original air conditioner for '62 Chevrolet. Esch, 292-0754.

SOMEONE to tune piano at reasonable price; someone to teach piano to young child, preferably in our home. Sanchez, 897-0779 after 5:30.

UTILITY TRAILER in good condition. Reif, 299-2665.

MARLIN .22 cal. lever action rifle; Winchester 30/30 carbine, pay cash & trade Stevens Savage .22 rifle. Smitha, 881-1001.

KING SIZE MATTRESS, box springs & frame in good condition. Marion, 294-8256.

### FOR RENT

2-BDR. town house-apt., unfurnished, near Central & Tramway, \$225/mo. Berg, 296-2695.

NEW HOME, 3-bdr., 1 1/2 bath, all major appliances, dbl. garage, carpets, drapes, landscaping, lease, \$395/mo., water paid. Reda, 821-3817.

3-BDR. unfurnished, 1 1/2 baths, AC, refrig., walled back yard, 2 children OK, small dog, not cats, avail. Dec. 1, \$325/mo. on lease. Caldes, 298-9277.

UNFURNISHED NE HOME, 3-bdr., 1 1/2 baths, garage, lvcad yard, range & refrig., \$285/mo., water paid. Duvall, 881-4406 after 5.

TAOS SKI VALLEY CHALET, luxury 3-bdr., 1 1/2 baths, sleeps 8, fully equipped kitchen, ski to lifts, reservations. Marion, 294-8256.

### LOST AND FOUND

LOST — Folded umbrella in black leather case.

FOUND — Man's straw hat w/feather, 2 keys on "Jaguar" tag, 2 locker keys on badge clip. LOST AND FOUND, Bldg. 832, 264-1657.

**Coronado Club Activities**

# 'Bring Back The Fifties'

TONIGHT AT Happy Hour a group called Crosswinds with singer Cookie Vee is on the bandstand. The buffet features T-bone steak or King Crab. Next Friday the United Brothers play for dancing, the buffet features barbecued ribs. Call 265-6791 by mid-week to reserve Friday buffet tickets.

\* \* \*

TOMORROW is the deadline for reservations for the big one this month — "Bring Back the Fifties" dinner dance on Nov. 18 featuring a super group called Dazzle on the bandstand. Lobster tail or prime rib is the dinner menu. Tickets are \$7.50 for members, \$8.50 for guests.

\* \* \*

SANADO WOMEN meet at noon Nov. 14 for lunch and a slide presentation on New Mexico Boys Ranch. Call Nancy Dodd, 296-1158, today for reservations.

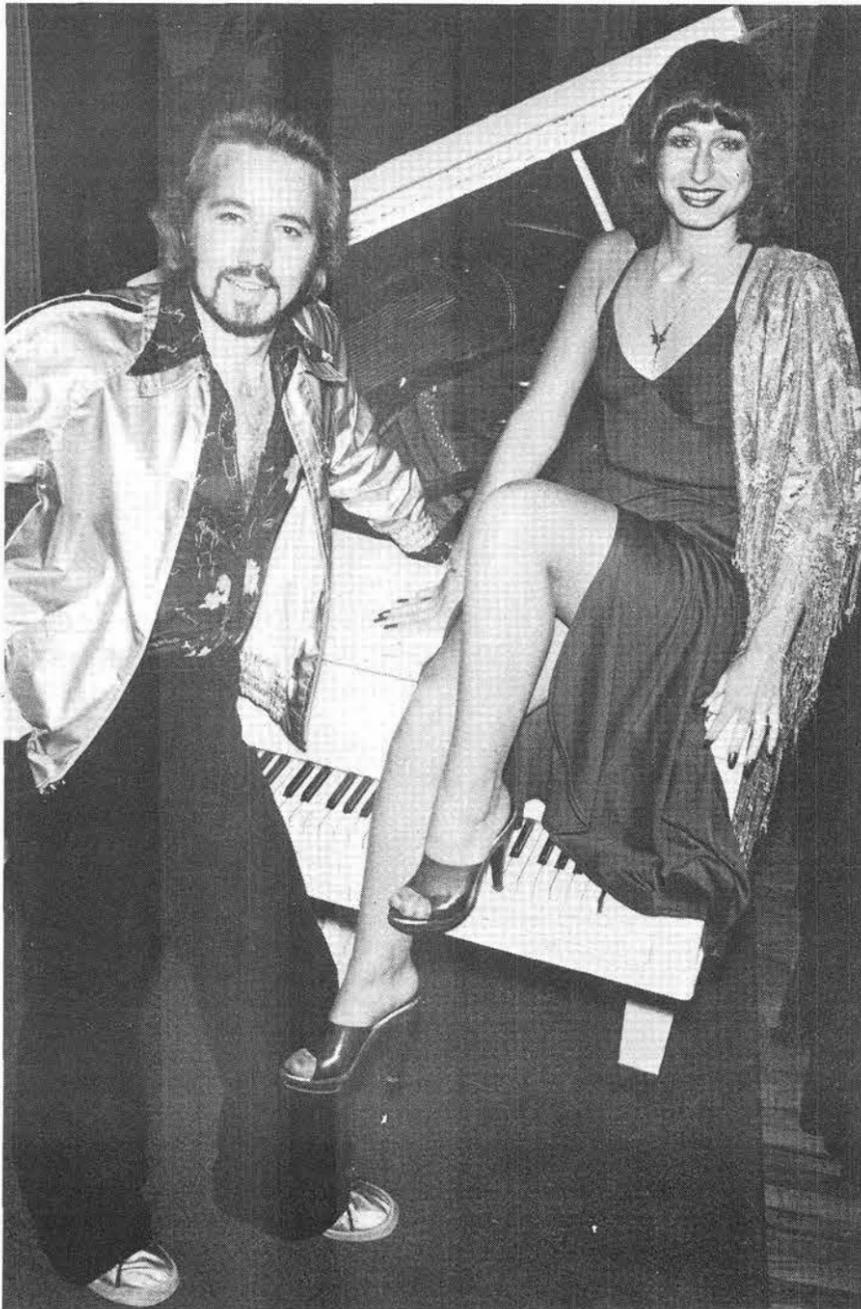
\* \* \*

THE WOLFPACK travels to Tempe Nov. 30-Dec. 3 on charter bus to attend the Sun Devil Classic tournament. Bus fare, lodging, parties, tournament tickets, and breakfasts costs \$112 (dbl), \$144 (single). Call Pro Padilla, 4-3462, for more info.

TRAVEL DIRECTOR Ed Neidel has two packages available — a go anytime to London package for one or two weeks for \$499 or \$689. The trip includes air fare (from Dallas), vouchers for accommodations in THF hotels, breakfasts, and either a rental car or a rail pass.

A pre-trip meeting is set Nov. 14 at 7:30 p.m. in the Club's room B-5. Movies will be shown.

Second package is a Caribbean cruise Jan. 6-14 including air fare to San Juan, Puerto



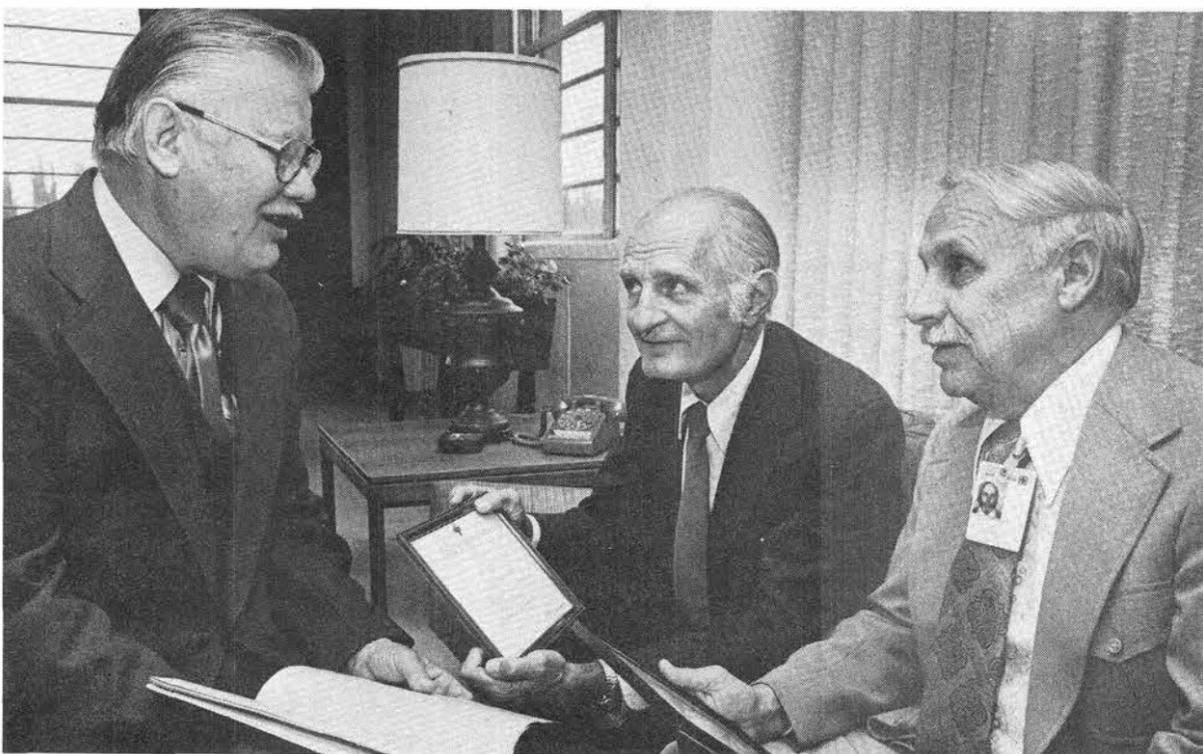
DAZZLE, a six piece show band, features singer Lucy Maiorino and keyboard master Ron Hedges. The group performs at the Club's upcoming "Bring Back the Fifties" dinner dance Nov. 18. Musically versatile, Dazzle plays disco, rock, jazz and the old ballads in a swinging modern style. Each selection is a big production number, and Lucy sings as great as she looks! Ticket deadline is Nov. 11.

Rico. Prices start at \$784 and go up depending on cabin choice. See Ed in the Club lobby tonight from 6 to 7 for more info.

UPCOMING EVENTS — Sanado Christmas Ball, Dec. 2.



Nielson ratings are a life-and-death matter to TV. A minute percentage shift can topple top executives, cancel contracts, put producers and performers back on the street. According to the Wall Street Journal, Nielson surveys have discovered another ulcer factor. Seems there's been a slow but consistent decline in the total number of people who watch television. The gang at Nielson has tried to reassure the industry that natural factors (like the shrinking size of the average family) account for viewer decline. If they'd stop watching their counters long enough to turn on and watch their TV's, they might just discover some other causes. Like boredom, for example.



RED CROSS AWARD — Sandia's Medical Director, Dr. Paul Mossman (at right), recently received an award from the Red Cross which cited his "support and leadership" in New Mexico's first company-wide Cardiopulmonary Resuscitation Program (CPR). More than 1200 Sandians have received CPR training; already CPR-trained employees have saved the lives of two employees who suffered cardiac arrest on the job. Jerry Jercinovic (3400, at left), Chairman of the Bernalillo County Chapter of Red Cross, made the award and also awarded a Certificate of Appreciation to Sandia. The ceremony took place in President Spark's office.

