

WAYLON FERGUSON (3710), ECP Committee Chairman

**1983 ECP Campaign**

# New Look, New Life

The Employee Contribution Plan campaign has a new look this year. It's now a year-round awareness effort intended to show how funds are being used.

And it's more fun. One example — the Employee Concert Party on Monday.

"This talent show will kick off the 1983 campaign," says Waylon Ferguson (3710), the ECP chairman. "It's one of the new ways in which we're hoping to increase employee awareness of and participation in ECP." Other innovations are Agency Awareness Programs and regular LAB NEWS coverage to show how funds are actually being spent.

Why participate? Waylon points out that more local involvement is necessary because the responsibility for charitable activities is shifting from government to private efforts. Community needs can be met only through increased individual contributions, and ECP is a convenient way for employees to help meet these needs.

"Sandians have a record to be proud of," says Waylon. "In years past we've made significant contributions. I know that this year, Sandians will again consider the needs of the community and be generous.

"We have good jobs in a good environment. ECP gives us the opportunity to help

*(Continued on Page Two)*

## **W80-0 Destroyer Compatibility Tests**

# Prelude to Tomahawk Launch from Destroyer

A team of Sandians spent July and August on a destroyer in San Diego performing electrical compatibility tests between the W80-0 warhead, part of the Navy's Tomahawk cruise missile system, and the ship's electrical system. The Tomahawk W80-0 has been successfully launched from submarine torpedo tubes but never from surface ships.

The *U.S.S. Merrill* is the first destroyer to be fitted with an armored box launcher (ABL) that contains several cruise mis-

siles. A vertical launch system (VLS) is also scheduled for subs and ships.

Sandians performed a series of on-board tests in which a telemetry (TM) package is substituted for a live warhead. The package monitors arming signals coming from the ship's system and simulates the response of the warhead. These warhead functions are also monitored and checked.

"We've already encountered a couple of problems, such as the one that told us we had a disabled warhead," says Paul Long-

mire, supervisor of W80 Development and Test Division 5132. "It was a wiring problem and easily corrected, but it's the kind of thing we're checking for. We've performed compatibility tests on aircraft for years, but sub and surface ship operations are relatively new.

"The compatibility tests are a prelude to a series of test launches and flights of Tomahawk cruise missiles from the de-

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# LAB NEWS

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FOUR PERFORMERS in Monday's ECP Talent Show invite all Sandians to join them in front of the tech library (Bldg. 804) starting at 11:30. From the left, Allison Davis (1813), Mary Rodriguez (3412), George Dacey (1), and Bill Fienning (5254) with his sidekick, Siegfried the Dragon.

## **Employee Concert Party**

# Talent Galore — And More!

On Monday, a spectacle of unparalleled splendor will take place in front of the tech library to mark the start of the 1983 Employee Contribution Plan campaign (Oct. 3-7).

A melange of acts composed entirely of talented (and even multi-talented) Sandians will perform for the delectation of the noontime crowds. Magicians, singers, a belly dancer, cloggers, and more!

Emcees will be the ever-popular Liz Scott Patterson (3153) and almost-as-popular Bruce Hawkinson (3162).

The artistic director of this kaleidoscopic kermesse is histrionic John Gardner (3153) who explains that in his English homeland a concert party is an outdoor entertainment: "And what can be more appropriate," he emotes, "than to hold an Employee Concert Party, or ECP, to initiate the Employee Contribution Plan — also ECP — campaign!"

But more! Five hundred luscious sandwiches of bewildering variety will be sold for only one dollar. (That's *each one* for a dollar, silly — not all 500 for a buck.) Also complimentary popcorn and lemonade.

If inclement weather makes it necessary to postpone the show, it will be rescheduled for Tuesday, Oct. 4.

# Antojitos

A Human's Work is Never Done--Nowhere is the accuracy of the physical law of entropy more easily perceived than in the home. Somehow we expect the natural state of a home to be one of order; in reality, the reverse is true--the normal state is disorder, perhaps even chaos.

Why is this true? At the moment in which you read this, at, in fact, any given moment in which you are not effecting a change of state in your domicile, i.e., cleaning, picking up, etc., your home is actively, even maliciously, hastening toward disorder. Something is dripping in the refrigerator, the dog is rearranging the contents of the wastebasket, dust is blowing through a never-discovered crack, and a patient spider is spinning once again its ultimate web.

If, then, these entropic processes are not only natural but ordained, why should they concern us so greatly? Because all of us are locked into a conspiracy to con our neighbors, our visitors, even (perhaps most of all) ourselves that we live in a well-ordered, immaculate home-sized atom of the universe. So whenever our mothers or the Misses Manners of the world are expected to pay a call, we are driven to reverse nature's inevitable entropy by the sweat of our brows (combined, of course, with a variety of other fluids purveyed for their miraculous cleaning powers). We must pretend that natural laws do not operate in our homes, that we are somehow exempt from entropy.

For we know that, although we are aware of these immutable laws, no one else who visits our home is. Visitors cannot see a clean window, a tidy floor, an orderly arrangement of books/magazines/records/clothing/dishes. What they can see--indeed all they can see, our proper upbringing teaches us--is a flaw, any flaw, all the flaws: dust on the shelf, a dripping faucet, a broom stored when an ironing board ought to be, a water spot on the crystal.

It's time to accept our inability to suspend the laws of the universe and revive the parlor, the room in the house opened only for visitors and to which all visitors are confined. Better yet, make it a hermetically sealed parlor or one with a constant overpressure to keep the dust out. Even better, a laminar air flow parlor containing nothing but concrete benches to allow clean, albeit not gracious and somewhat drafty, entertaining.

Best of all, choose entropically oriented friends.

\* \* \*

Today is the last day of your life thus far.

●BH

**Continued from page one**

## New Look, New Life

those who are less fortunate. We never know, as individuals, when we or our families might require help from social service agencies. Even if we never need their services, these agencies help to make Albuquerque a better place to live."

In 1982, 87.5 percent of Sandians participated in ECP; 50 percent were Fair Share

(0.6 percent of salary) or greater. Waylon says that the goal for 1983 is \$975,000.

"This is a campaign run by employees for employees," says Waylon. "I hope all Sandians will open up their pocketbooks and be generous.

"See you all at the ECP talent show on Monday at the Library!"

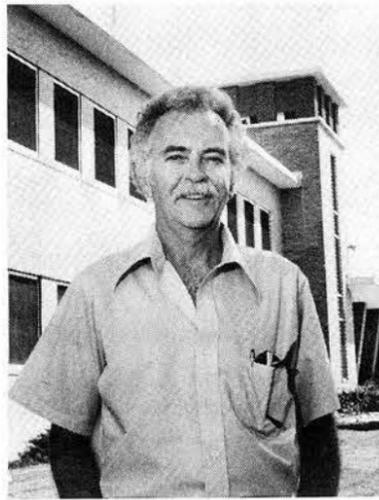
## Retiring



Jim Ruttle (5333)



Nita Ward (7251)



Lial Brewer (3310)

## Faire Opens LEAP Drive

The '83 LEAP (Livermore Employees Assistance Plan) campaign kicks off today with a noontime faire in front of Bldg. 912, featuring information booths from more than 15 human service agencies being supported this year by employee contributions.

In addition to the booths, there will be free hot dogs and soda pop for the first 300 Sandians to visit the faire, which runs from 11:30 a.m. to 1 p.m. Representatives of each charitable group will distribute literature describing their functions and volunteer forms for people interested in helping out personally in the agency's work during the year.

This year's goal is \$96,000 (seven percent higher than last year). LEAP committee chairman Don Nissen (8312) emphasizes that this year's plan is to give the greatest amount ever to valley agencies that have been squeezed financially by cutbacks in support from other sources. Says Don, "We hope that the faire will make us all more aware of what these local agencies are accomplishing. We need to bring home the message of need that our committee has seen firsthand in meetings and visits to several of the groups."

Another innovation introduced by the LEAP committee is a 15-minute videotape highlighting three agencies for showing to new employees, division solicitors, and any Sandia organization that wishes to become better aware of where the dollars will be going. This film can be checked out by contacting Don or any member of the LEAP committee.

Other members this year include deputy chairman Bill Ormond (8261), 8100 representative Ayden Young (8113), 8200 representative Geri Carson (8273), 8300 representative Larry Thorne (8315), 8400 representative Don Adolphson (8445), 8500 representative Bob Lucht (now 8361), and Fred Johnson (8414).

The committee has continued last year's very successful donor option plan that allows employees to designate specific

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VISITING RECIPIENT AGENCIES was the most heartwarming experience for the LEAP committee. Here they tour the Kaleidoscope Center for children with developmental disabilities, located in Dublin. From left are head teacher Sally McKnight, Jackie Foster (8312), Bill Ormond (8251), Geri Carson (8273), Ayden Young (8113) and Fred Johnson (8414).



dollar amounts to their favorite human service charity. This plan resulted in increased giving last year. "With such positive results, we want to encourage people to consider that alternative again," says Don.

Selected for support this year after extensive interviews and discussions on the agencies appealing for funds (in addition to some 221 United Way of the Bay Area agencies) are: Livermore-Amador Valley Emergency Fund Center, Twin Valley Learning Center, Hope Education, Buenas Vidas Youth Ranch, The Center (for juvenile, drugs and alcohol counseling), Nursery School Scholarship Fund, New Directions, Tri-Valley Haven, Hope Hospice, and four groups receiving first time funding.

The four new recipients include:

- Kaleidoscope Center, school for mentally retarded children in Dublin
- LAGATS, the Livermore Association for Gifted and Talented Students
- Livermore Playschool, a pre-school program for youngsters
- M-2 Re-Entry, a program to help prison inmates prepare for re-entry into society.

The LEAP policy of giving funds only to local agencies that are not members of United Way means that some of the groups supported in the past will not be considered this year. But Don feels that the added groups have a fine record of serving the needs of valley residents and deserve as much support as possible. The exact amounts are not set until the final tally is made of contributions from employees during October.

This year's slogan: "Share, Care Through LEAP."

## Congratulations

Peter and Debra Crooks (8263), a son, Charles Justin, July 8.

Sharron Tyler (8214) and Paul Norris, married in Carson City, Nev., July 14.

Peter Dean (8265) and Adana Echer (8264), married in Inverness, Aug. 20.

Linda (8353) and Jerry DeKay, a son, Robert Gerald, Sept. 16.

## Supervisory Appointments

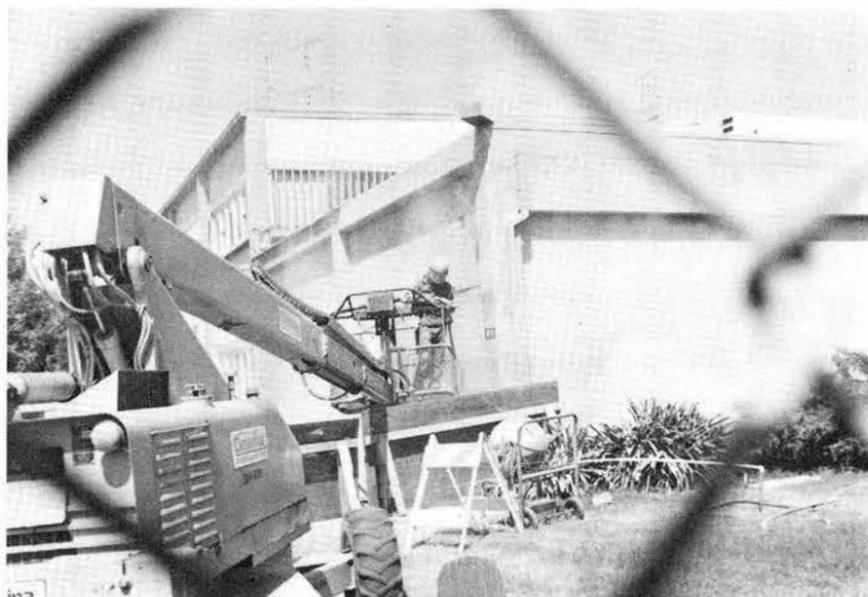


CORKY FORD to supervisor of the Computer Operations Section (8236-2), second shift, effective Aug. 1.

She joined Sandia five years ago, first as an operator in computing, then, a year ago, as lead operator.

Corky, whose given name is Carlos, is working on a certificate in electronics at San Joaquin Delta College. A native of Tulare, she lived in the Northwest and Texas for a few years before moving back to this area in 1978.

She and her husband Gene are residents of Stockton and have two grown sons. They enjoy camping, hiking, and reading; Corky is also interested in parapsychics.



FRAMED BY the mesh construction fencing outside Bldg. 911 is a workman sandblasting the exterior. This is the first phase of a two-year seismic upgrading of this building and 912 that began last month. Most of the occupants of 911 and one wing of 912 moved to temporary quarters in mobile office structures. The earthquake damage and restoration project will total \$3.2 million. General contractor for the work is Harold J. Younger, Inc. of Sacramento.



GERMAN VISITORS at Sandia Livermore recently took part in a joint exchange on conflict modeling, arranged through the DOE. The computer-based exercise involved fullscale attacks by Warsaw Pact countries on central European NATO forces. From left, standing, are Otto Reidelhuber, project manager of the Military Analysis Institute (IABG); Major Axel Strehlike of the West German Air Force; Tim Tooman (8224); Jim Rogers (8224); Rob Rinne (8220); and Major Wolf Richter of the West German Army. Seated are Hubert Figel of the German Study Institute (SWP) and Bob Czapinski (8224).

*Continued from page one*

## Tomahawk Meets U.S.S. Merrill

stroyer in coming months," Paul continues. "Four launches during November to January will be performed from the U.S.S. Merrill."

The Tomahawk cruise missile is a small, relatively quiet missile resembling a miniature jet fighter. It hugs the ground (or the surface of the sea) at low altitudes on its pre-programmed flight to the target. More than a year ago, a Tomahawk with a W80 warhead was launched from beneath the sea off the coast of California near Santa Barbara and flew to impact into a target at Tonopah Test Range. Some of the coming flight tests are also scheduled to impact at TTR.

During the flight tests, Sandia installs a TM package that monitors the launch and flight environments and the arming, fuzing, and firing signals generated by the missile and warhead response.

Project leader for the compatibility tests is Ross Yingst with participation from Gary Swagerty, Jack Smith, Earl Graff, and Jim Gearhart (all 5132). Rex Legally, Ray Jojola and Roland Hewitt of Mobile and Remote Ranges Division 7137 assisted. A mobile Sandia instrumentation trailer was parked at dockside in San Diego during the test activities.

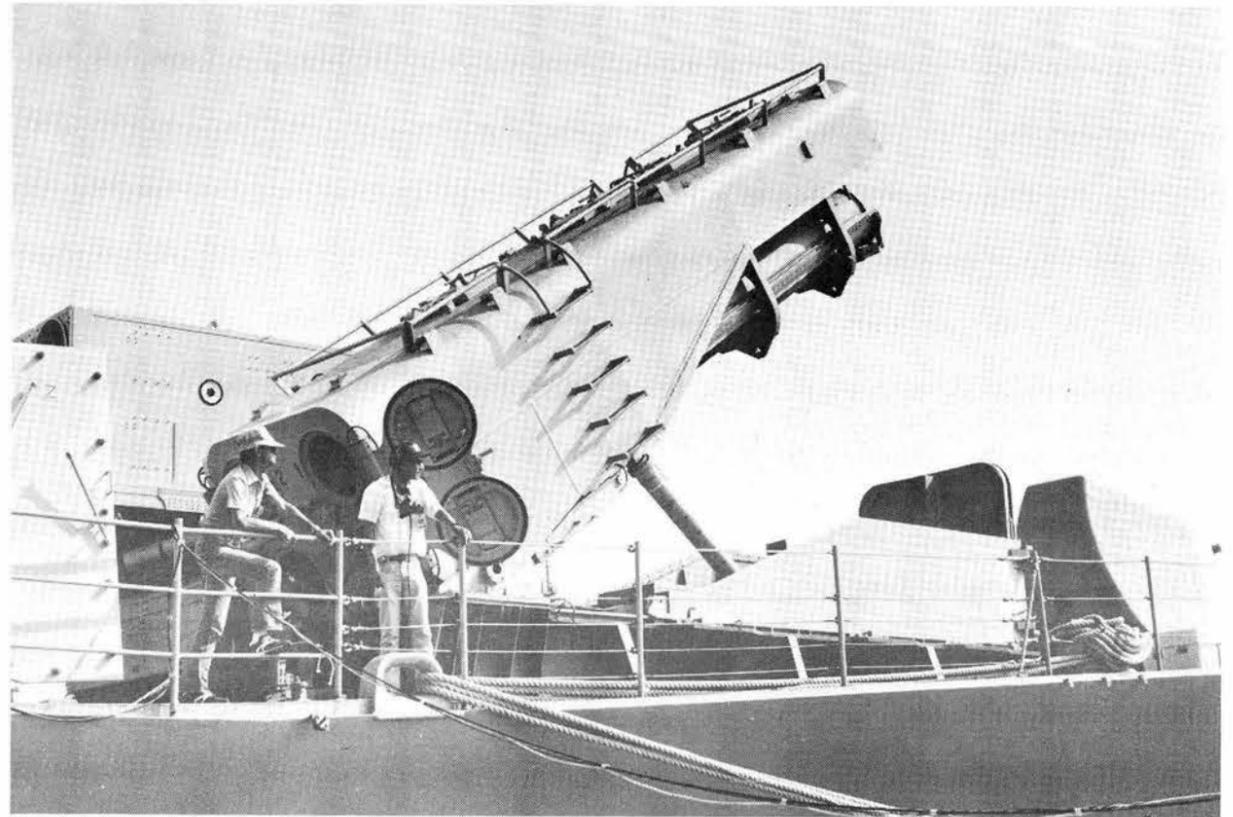
## 'Biologues' — A New SLA/UNM Seminar Series

An unusual new seminar series has been instituted by Sandia and the UNM School of Medicine. Called "Biologues" (a contraction of Biotechnology Dialogues), the seminar series will explore the interaction between the biological and physical sciences.

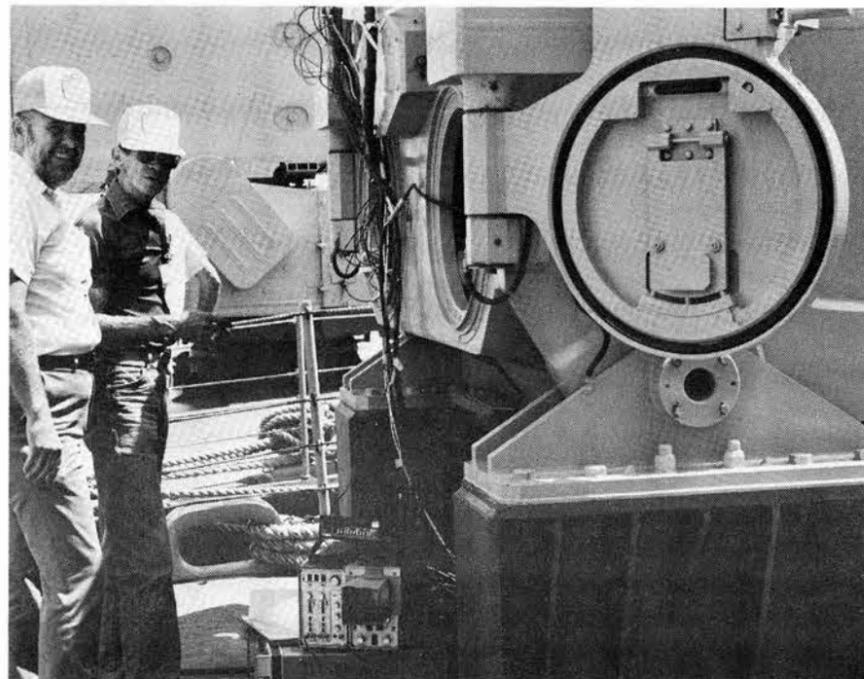
Dr. Paul Mann and Dr. Bob Kelly (Medical School Anatomy Department) are the UNM coordinators. Sandia coordinators are Glen Kepler (1810) and John Panitz (1134). "We are convinced there are many areas of mutual interest that, if identified and addressed cooperatively, could benefit basic research in both biological and physical sciences, and could lead to novel applications," says John.

He mentions two examples. Nuclear magnetic resonance imaging, a technique developed by physical scientists, is having a tremendous impact in medicine as a non-invasive diagnostic tool. And biological research in how we sense our environment could revolutionize the man-machine interface by providing sensor concepts that will make machines more responsive to their user and the world around them.

On the first Thursday of each month, beginning Oct. 6, a one-hour Biologue will be held at either Sandia or at UNM. Refreshments will be served from 3 to 3:30 p.m. and



ARMORED BOX LAUNCHER is moved to raised position on destroyer deck as Jim Gearhart (5132), left, and a General Dynamics technician watch.



ROSS YINGST and Jim Gearhart, right (both 5132), are installing connecting cables between armored box launcher for cruise missiles and Sandia test equipment on the deck of the destroyer U.S.S. Merrill.

participants will have the opportunity to meet informally with colleagues in both disciplines; the Biologues start at 3:30.

Following is a list of speakers and their general topics:

Oct. 6 Ray Harrigan (6221), "Robotics" (at UNM)

Nov 3 Scott Altenbach, "Animal Locomotion" (at Sandia)

Dec. 1 Bob Anderson (1815), "Biological Motors" (at UNM)

Jan. 5 Bob Waterman, "Biological Balance Sensors" (at Sandia)

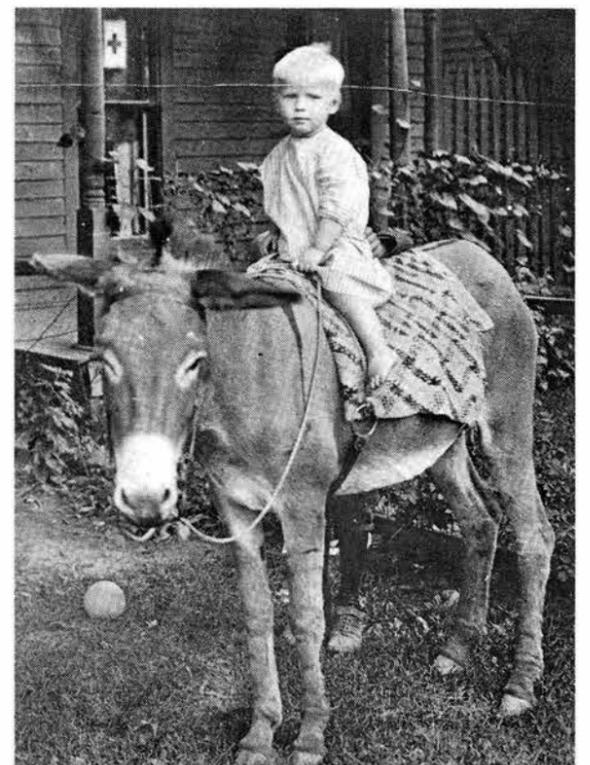
Feb. 2 Dennis Ghiglia (2644), "Image Processing" (at UNM)

March 1 Charles Kelsey, "Human Diagnostic Imaging" (at Sandia)

April 5 Bruce Hansche (7551), "Diagnostic Imaging of Materials" (at UNM)

At Sandia, the seminars will be held in the Bldg. 822 conference room; at UNM, they'll be held in room 203 of the Basic Medical Science Bldg. I on the North Campus. A shuttle bus service will be provided for Sandians who wish to attend the UNM seminars. Service will be on a first-come, first-serve basis. The bus will leave from Gate 6 promptly at 2:30 p.m. and return to Gate 6 at 5 p.m.

### Favorite Old Photo



This picture was taken in the summer of 1918 in front of the house in which I was born in Las Vegas, NM. An itinerant photographer hired a local man (he's holding me) and his donkey and snapped the photo. I was about 20 months old at the time. (Charlie Z. Stuart—retired)

ED DOMME (2620), ED WITTWER (5313-1), and RAY REYNOLDS (5160)



## Supervisory Appointments

ED DOMME to manager of Data Processing Applications Department 2620, effective Oct. 1.

Ed came to Sandia in 1951 as a methods analyst. He was promoted to supervisor of a methods section in 1954 and to a division supervisor in weapons programming in 1956. Ed has supervised many divisions at the Labs; manufacturing development engineering, operations and engineering methods, design definition, engineering and administrative information systems, computer operations, and industrial relations. Currently, he heads the Systems and Appraisal Division 3416.

Ed received a BBA degree from UNM in 1951. He and his wife Kathryn have five grown sons and four grandchildren. They live in the NE heights.

\* \* \*

ED WITTWER to supervisor of Fabrication Development Section 5313-1, effective Sept. 1.

Ed joined the Labs in 1952 as a field test technician. He remained with the field test group until 1966 when he joined the satellite systems organization. His most recent assignment has been with the Design Development Division 5313.

Before coming to the Labs, Ed was in the Air Force from 1948 until 1953, stationed at KAFB. He and his wife Nadine (2361/62) live in the SE heights.

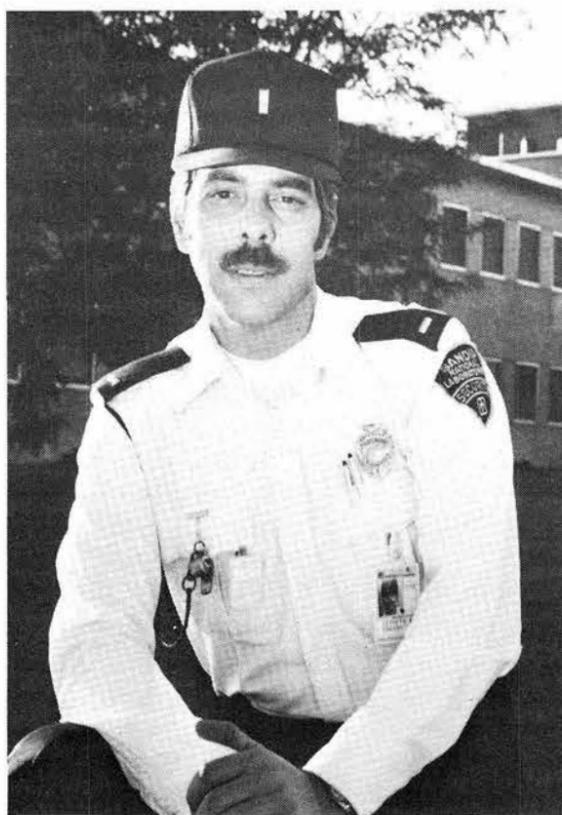
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RAY REYNOLDS to manager of Advanced Weapon Systems Department 5160, effective Sept. 1.

Ray joined the Labs in 1961 as a staff member in the weapon systems group where he worked on full-scale engineering programs and advanced systems feasibility studies. He completed a one year assignment in Washington, D.C., with the Defense Communications Planning Group. In 1970 Ray was promoted to supervisor of a preliminary systems design division. As a division supervisor, his responsibilities have included Phase I and Phase II studies, advanced electrical systems development, advanced development on the Pershing II earth penetrator programs, engineering development on the W85 and W86 and, for

the past year and a half, project engineering for the B61-3-4.

Ray received his BS and MS in EE from Texas Tech. He and his wife Jean have three children; they live in NE Albuquerque.



KEN ERRICO (3435)

KEN ERRICO to Lieutenant in Security Operations Division II 3435, effective Aug. 12.

Ken joined the Labs as an "extra board" security inspector in March 1982 and became a full-time employee one year later. Before coming to Sandia he was a security specialist technician for the NM Air National Guard. Ken, a Vietnam veteran, served four years active duty and has a total of 17 years military service. He is a Technical Sergeant with the Air National Guard.

He and his wife Linda have two children and live in SW Albuquerque.

### Sympathy

To Doris Mason (3543) on the death of her father in El Paso, Aug. 28.

## Events Calendar

- Oct. 1 — NM Symphony Orchestra Balloon Fiesta Concert, free, Civic Plaza, 842-8565.
- Oct. 1-2 — NM Gun Collectors Assn. Gun Show, antique & modern firearms, State Fairgrounds, 8 a.m. - 6 p.m., 898-2983.
- Oct. 1-15 — NM Glass Artists Assn. Exhibit, all types of glass art, Main Library, downtown, 766-5045.
- Oct. 2 — "I Should Have Thought of That," Podium Players, 2 & 8 p.m., KiMo.
- Oct. 2-3 — Arts & Crafts Fair, San Felipe Pueblo, 867-3381.
- Oct. 3 — Albuquerque Philharmonia Orchestra concert, 8:15 p.m., Highland HS Performing Arts Center.
- Oct. 3 — Dian Fossey Lecture, "The Life and Threats to the Survival of the Mountain Gorilla," presented by UNM Anthropology Dept. and the Leakey Foundation, 8 p.m., Popejoy.
- Oct. 3-30 — "Long Day's Journey Into Night," Fris. & Sats., 8 p.m.; Suns., 2:30 p.m., Vortex Theatre, 247-8600.
- Oct. 6 — Best of Broadway Series: Rostopovich conducts The National Symphony, 8:15 p.m., Popejoy.
- Oct. 7-9 & 13-16 — ACLOA presents "The Fantasticks," Albuquerque Little Theatre, 8 p.m., Sun. at 2 p.m., 242-4750.
- Oct. 7 — NM Jazz Workshops presents George Russell's New York Big Band, 8 p.m., KiMo, 766-7816.
- Oct. 7-9 — 8th Annual Grecian Festival: Greek food, dancing, arts & crafts, St. George Greek Orthodox Church, 247-9411.
- Oct. 8 — "Wheelwright Day on the Plaza," celebrating the 46th year of the Wheelwright Museum of the American Indian: Indian dances, craft demonstrations, storytelling in the Tipi by Pablita Velarde and Joe Hayes, Indian games and food; until 4 p.m., Santa Fe Plaza.
- Oct. 9 — NM Sinfonietta (NMSO's newly formed chamber orchestra) concert, "Basically Baroque" performance with members of the NMSO Chorus, First United Methodist Church, 7:30 p.m.
- Oct. 14-15 — 2nd Annual Wildlife Art Exhibition & Sale, paintings and sculpture of wildlife, on the mall at Winrock Center.
- Oct. 14-16 — Albuquerque Opera Theatre presents Verdi's "Rigoletto," 8:15 p.m. Fri. & Sat., 2:15 p.m., Sun, KiMo.
- All month — "Hiroshige": A Japanese woodblock print exhibition; "Double Eagle V"; a collection of balloon photos and memorabilia at the Albuquerque Museum, 766-7878.

## Death



Melvin Reynolds of Experimental Programs Division 6332 died suddenly Sept. 16. He was 52.

He had worked at the Labs since October 1950.

Survivors include his wife and four children.

# Programs for Women — Before Hiring and After

(LAB NEWS gave Yolanda Padilla-Vigil, 3511, six months to get acclimated to the tasks of Women's Program Coordinator, then asked her a few questions about the work of the Women's Program Committee she heads.)

SLN: Is the Women's Program Committee still concerned primarily with bringing women with technical education to Sandia?

YP-V: Yes, that's a major function. However, we have several other important activities. For example, "out reach" programs — Women's Leaders' Day, career days, and job fairs. During our recent Women's Leaders' Day, the Committee hosted 40 women leaders from throughout New Mexico to inform them of Sandia's need for qualified women applicants. We've also conducted several programs for our on-roll women.

SNL: For example?

YP-V: We just recently staged a panel discussion by two department managers, Ruth Whan (1820) and Danny Brown (3140). And we recently held a couple of "no host" luncheons for staff women to provide an opportunity for networking. If these types of programs continue to prove successful, we



plan to expand them to include all Sandia women. Oh, we also showed a movie, *A Woman's Place*, that demonstrated that women have made, and continue to make, contributions in all professional and social arenas. Good inspiration for all of us!

SLN: So why all these activities for women who are already here?

YP-V: If you're a new hire and the only female staff member in the division, you need a support system — some people with more experience who can help you learn the ropes. Talking to another woman can help get you acquainted with the system.



I'm now teaching an out-of-hours class that I hope will give some of our women guidance on career development or help them become more effective in their jobs. It's called "Career Counseling Workshop," and it covers several important career development issues. It runs for 12 weeks and, yes, men can take it too.

SLN: Are you going to sponsor any more noontime programs?

YP-V: We are certainly considering it. We feel they're an excellent way for women to get together for companionship and, quite possibly, to foster "mentor" relationships. So with the approval of Sandia management and the cooperation of staff women, we probably will proceed with noontime get-togethers.



SLN: What goals have you set for your



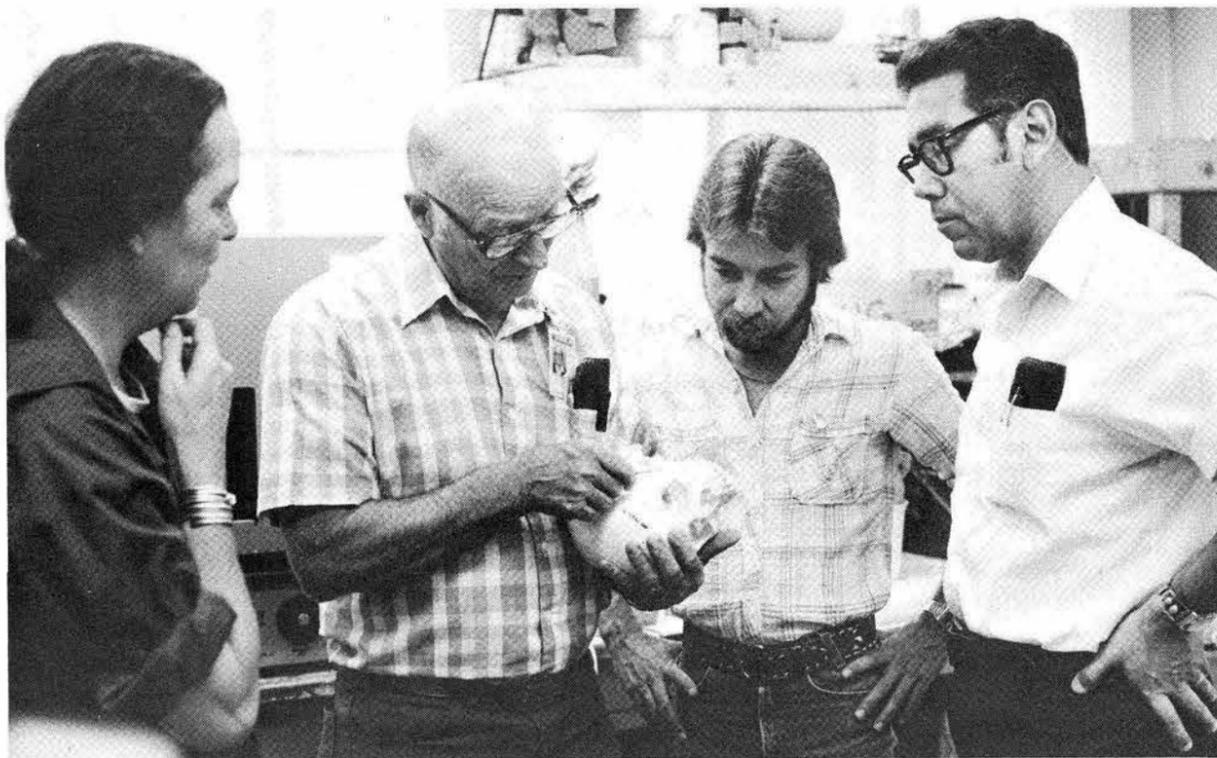
program?

YP-V: To provide women with a continuous series of programs and workshops that will enhance the status of all women at Sandia. At the same time, we will continue to assist management by identifying women qualified for Sandia employment.

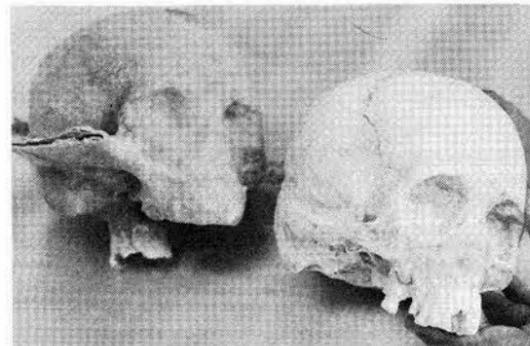
SLN: Make Sandia attractive to good women before they're hired and after, right?

YP-V: Right!

WOMEN'S LEADERS' DAY was held at Sandia last week. It offered female leaders from around the state an opportunity to learn what Sandia is doing with and for women, both as employees and as prospective employees. Ray Powell (3000) was one of several members of Small Staff who participated; here he visits during a break with (left) Leonila Serna, superintendent of Taos Public Schools, and Betty Skupaka, associate superintendent at Albuquerque Public Schools. The daylong meeting was coordinated by Sandia's Women's Program Committee headed by Yolanda Padilla-Vigil (3511).



SKULL DRUDGERY has been reduced for the curators at UNM's Maxwell Museum of Anthropology, thanks to a Sandia-developed technique for making replicas of skulls and other bones. The traditional material, a form of plaster of Paris, is heavy, easily broken, and difficult to use in recreating thin bone features such as upper jawbones. Above, three Sandians — Bob Weaver (holding a plaster of Paris skull), Jim Bullard, and Fred Sena, all of Plastics Section 7472-2 — discuss the replication task with Maria Bauer, osteology assistant at Maxwell. Smaller photo shows a skull mold and the finished product, a skull from Chaco Canyon replicated in 20-lb. rigid polyurethane foam. The technology for creating the lighter, stronger, and more accurate skulls, developed primarily by Fred with Bob's advice, has now been transferred to the Museum.



# Wellness—The Positive Side of Medicine

by Judy Ewing, MD (3330)

Ills. Pills. Bills. Put them all together and you've defined "medical attention" for most people. It's logical — you get sick, you visit a doctor.

But today you're probably getting a bit more from those visits than medication. Perhaps the news that if you quit smoking you wouldn't have bronchitis so often. Or if you lost a few pounds and started an exercise program, your back wouldn't hurt as often.

All of these suggestions (and a great many more) are part of a trend to make Americans more aware of the positive side of medicine — that's wellness.

Pick up almost any newspaper or magazine and you'll find articles pointing out that you are responsible for your own health, that your health depends on the life style you choose. If you choose to smoke, choose to eat incorrectly, choose not to get adequate sleep, choose not to exercise, you are also choosing to accept the illnesses that may result.

Those of us in industrial medical departments like Sandia's are in a unique position — we're able to practice the preventive medicine and wellness promotion that traditional doctors seldom get a chance at. That's because we get to see you when you're well, such as during your periodic physical exams.

You've probably noticed that we do more than examine you these days. In fact, you may recall that we do an awful lot of fussing about your slow, but persistent, weight gain, about your not quitting smoking yet, etc., etc., etc.

What we are attempting to do is to prevent you from making yourself ill — that's preventive medicine, a major step toward wellness. Preventive medicine once meant primarily recognizing the causes of diseases or accidents, then prescribing measures to prevent them. The classic example is the prevention of smallpox and other infectious diseases.

However, it has become more and more apparent that patterns of disease today — and the nature of preventive medicine — have changed. Some of this change results from the decrease in the infectious diseases, but much of it is attributable to our affluent society and its effects on our choices of lifestyles.

It is with these choices that the "wellness" concept is concerned. The essence of wellness is a positive mental attitude, the realization that you control at least some of the major factors that determine your future mental and physical well-being.

Wellness is a combination of those things that make you feel really good about your life. It's the sum total of your lifestyle choices — nutrition, exercise, reduction of stress, and true relaxation.

Wellness involves rejection of cultural norms that are hazardous to your health — driving too fast (and not wearing seat belts), sitting too often, and smoking/drinking/eating too much.

Wellness programs, like the one here at Sandia, seek to promote lifestyle activities that enhance your well-being. Obviously, there are degrees of wellness, just as there are degrees of illness. And the level of your wellness depends to a great extent on the wisdom of your lifestyle choices.

All of us in America are bombarded with

health information ranging from pure bunk to rather sophisticated, well-tested principles. One of our major objectives in the Medical Department is to promote those activities that have enough scientific credibility to make a real difference to your physical and mental well-being. More on that in the next article in this series.

## Medical Corner

### Partial Situps — Preferred For Some

If you have had low back pain, you should avoid doing full situps. They apply more stress to the weakest part of the lumbar disc and could make you more likely to develop a herniated disc.

Try a partial situp instead. Lie on your back, preferably on a carpeted floor, and bend both hips to 45° and both knees to 90°. Your feet are together and resting flat on the floor. Fold your arms across your chest and then lift your head about four inches and shoulder blades about two inches off the floor. Lifting higher is not better because it will cause increased disc pressure. Hold for five seconds, then rest. Start with five repetitions and progress every other day until you reach ten repetitions. By lifting up your feet three inches and then adding weight onto your ankles and on your chest you can make the exercise harder.

*Caution: Do not perform the partial situps if you have high blood pressure.*

For more information on this or other exercises, contact Larry Suzuki (3332).

**Corporate Cup** — The CorpCup Track & Field Meet organizers have expanded the program to include a Fall Cross Country Meet (that's fall as in autumn). The event takes place on Oct. 23 at 9 a.m. at Roosevelt Park. Men run three miles, women two. (Toll-free number to FAPIS — Females Against Patronization In Sports — is 800/111-2222.) It's a team-scored meet with five persons making up the open division, five the 30-39 division, three the 40-49 division, and three the 50-plus division. No limit as to the number of teams entered. Eligibility rules are the same as for the spring Corporate Cup. This one is low key, folks — just call Tom Lenz on 4-8486 no later than 5 p.m. on Oct. 17 if you want to participate and give your 2- or 3-mile time (the one you currently run, not the one you did in high school). Coach Henry Dodd has scheduled a practice tomorrow, Oct. 1, at 8 a.m. at the east end of Menaul. SERP will pick up the tab for this one, so it's free to all competitors; but don't sign up unless you're pretty sure you can make it on the 23rd. One other warning — as distance events go, this is a sprint so be sure you're in good shape before you practice.

\* \* \*

**More Running** — The fix that all real runners are into is, of course, Dr. Jim Fixx, author of *The Complete Book of Running*. He's in town on Oct. 15 for the 7-kilometer

run (or 1-mile walk) sponsored by the Heights General Hospital. That's where both events start (at 8:30 a.m.) and finish. Entry fee is \$5, which includes the mandatory T-shirt. Trophies — 70 in all — go to the top three finishers in each of 14 age/sex categories; wheelchair and cardiac divisions too. All participants are eligible for a drawing for round-trip tickets to Disneyland for two, a Sony VTR, a set of Michelin

## Fun & Games

tires, a Cuisinart set, a \$75 gift certificate from Runner's Shoe World, season tickets to Popejoy's Best of Broadway series or the NM Symphony Orchestra or ACLOA. Register at any of several sport shops in town or pick up a form at LAB NEWS. More info from 888-7881.

\* \* \*

**Self-Defense** — Charles Pettitt (3642) will instruct a self-defense class for both men and women at the East Gym starting Oct. 6. The class, similar to the No-Nonsense Self-Defense classes offered through SERP in the past, will meet from 5 to 6:30 p.m. on Thursdays and Fridays. It's designed to build the confidence and develop the techniques necessary to self-protection. Call Tom Lenz at 4-8486 for more info and sign-up.

**Tennis** — An all-doubles tournament sponsored by the Sandia Tennis Association will be played Oct. 8-9 at the Coronado Club tennis courts. Mixed, women's, and men's doubles events are scheduled. Entry deadline is Oct. 6. Contact Mary McWherter (1636), 6-0147, for entry forms or more information.

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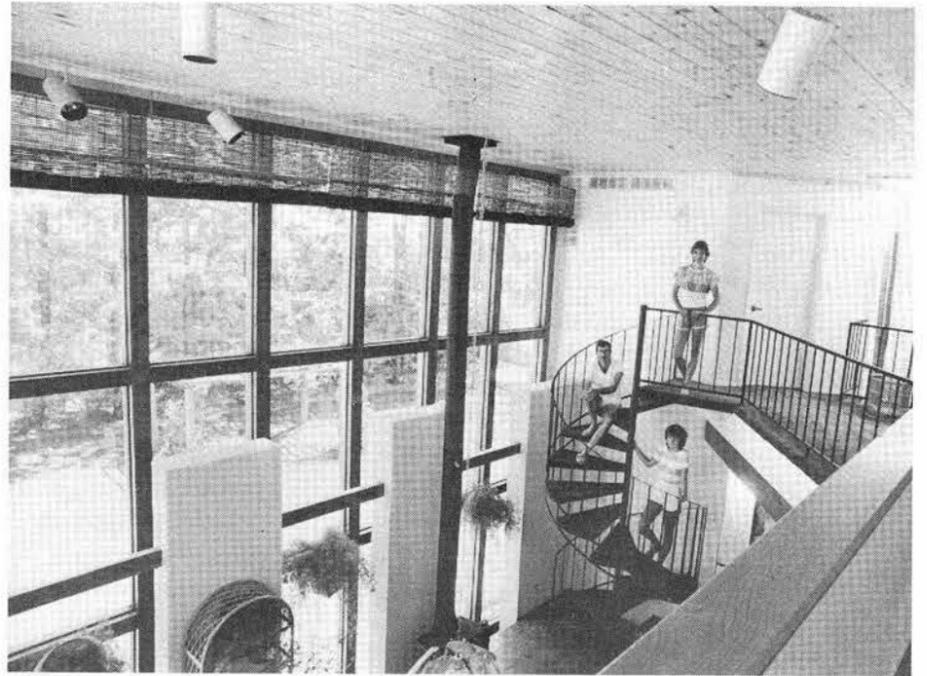
**Ice Hockey** — Leagues and teams are being formed for the New Mexico Amateur Hockey Association for skaters ages 3 through 16. If you don't know how to skate, NMAHA will teach you. It offers skating lessons — hockey, figure, leisure — every Saturday from 10 to 11:15 a.m. at the Iceland Arena, beginning Oct. 22. Cost is \$3 a lesson and a 75¢ skate rental fee. For registration or more information, call Ann Riley (11-1), 293-5868.

\* \* \*

**Literary Group** — Several Sandians have indicated a wish to form a literary group through SERP. The program currently offers nothing in the area of mental exercise so the need is obvious and the potential is limitless. If you're interested in participating and/or have some suggestions for activities, call Tom Lenz on 4-8486 next week.



YES, this is the north side of a solar house we are assured by Eldon Boes (6224) from his French-Quarter-style balcony. An interior view looking down from the second floor shows the south-facing window in the kitchen area and



some of the free-standing concrete pillars. Sharing the spiral staircase with Eldon are his daughters, Stephanie (top) and Sarah.

## He's Not Passive About Solar

Eldon Boes (6224) is a man with a message — two, actually. “First, I want to dispel the notion that a solar house cannot be a very conventional, even elegant, structure,” he says. “And second, there’s a tremendous flexibility to solar design. Passive solar features can be incorporated into almost any architectural style.”

Eldon and Joan have lived in their 3000-square-foot, two-story Mediterranean-style passive solar house for three years. Although the house has a backup electric furnace and a regular heat distribution system, heating costs have totaled no more than \$30 during the entire time. In the winter months, the average house temperature is 60-65 degrees, dropping somewhat below that at night. A Franklin stove sits in a corner of kitchen “as much for atmosphere as for heat,” says Eldon.

“While designing the house, we broke lots of rules,” he continues. “When building solar, you’re supposed to follow a set of rules of thumb, especially the one that limits window areas on the east and west sides of the house and prohibits windows on the north. But 25 percent of our north side is window area. We just love windows — all double-glazed, of course.”

Eldon’s house has four sets of French doors each on the north and west sides, and one set each on the south and east sides. These French doors are the most expensive single items in the house. They are steel

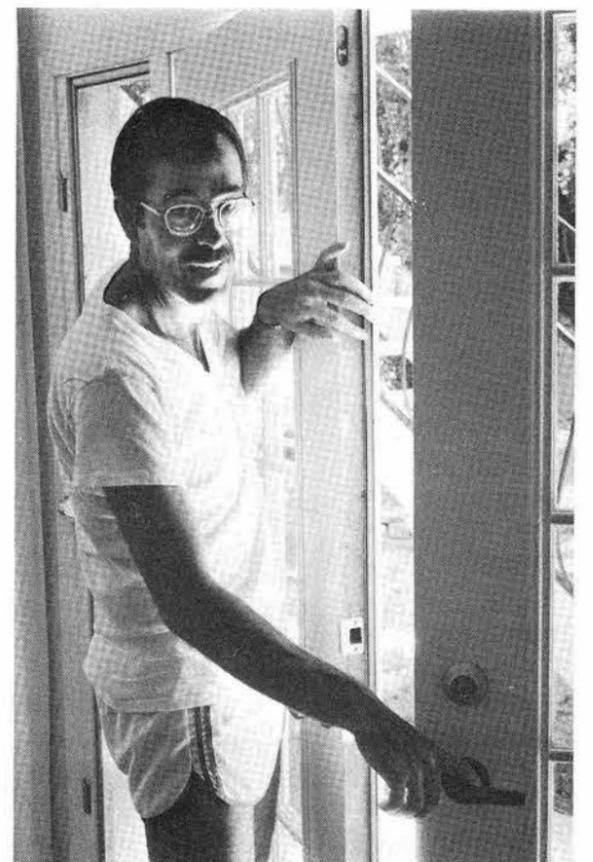
clad/foam core construction that provides good insulation, prevents warping, and permits a magnetic weatherstrip so that the doors seal like a refrigerator door.

“The south side has 450 square feet of double pane glazing,” says Eldon. “For heat storage, I have six free-standing concrete pillars roughly three by ten by one foot thick. Two are in the dining room and four in the kitchen. In spite of their size, these pillars are not at all obtrusive — some people don’t even notice them unless I point them out.

“The kitchen, which has a heat-absorbing Juarez tile floor, is most pleasant in the wintertime. The open, two-story area is very bright and comfortable. Our 22 by 40 foot living room/dining room combination flows into the kitchen. The 10-foot-high ceilings make a big difference — if they were the standard 8-foot height, the area would feel like a tunnel.”

Eldon is building additional heat storage facilities in the basement to even out the temperature of the house. Three thousand plastic gallon containers filled with water will collect and store the excess heat that is circulated by the furnace blower. This single blower is the central point for two or three air circulation loops and provides warm air to the basement through vents. The bottles will be stacked on tiers, floor to ceiling, in a specially built room.

“I welcome inquiries from persons who



ELDON with one of his metal French doors, displaying the magnetic weatherstripping that allows them to seal tight like a refrigerator.

are interested in building solar,” says Eldon. “And on a part-time, no-charge basis I’ll help them with their preliminary plans — just because I want to encourage solar construction.”

Those persons interested in seeing Eldon’s house and getting some sound solar advice can call him at 268-4481.

*Q. Why does ARA Food Services require a \$5 “container deposit” when supplying a catered lunch for a Sandia organization? It creates a real hassle — not to mention a great waste of time and transportation money. The person putting up the deposit must be transported back to the cafeteria along with the trays, coffee urns, etc., after lunch to claim the deposit; then he/she must be transported back to the work place. How about eliminating the deposit requirement? Obviously, the ARA people have the name, organization number, and phone number of the person responsible for the*

*returnable equipment. So no employee in his/her right mind is going to skip out with ARA’s coffee pots, etc., if he/she wants to remain employed at SNLA!*

**feed 'n' back**

A. Before 1979, a deposit was not required for coffee containers. Because many employees were not returning the coffee

containers within a reasonable period of time (even with follow-up calls from ARA), there were none available to other employees for scheduled lunches or meetings. During 1979, the Food Committee directed ARA to require a \$5 container deposit for coffee containers. It worked; since that time, employees have been returning the coffee containers and other items promptly so they are available for other employees’ use the next day.

J.R. Garcia - 3500



THE GOOD SHIP *Fantome* (left), a barquentine that plies the placid waters of the West Indies. Al Marrs (9231) snapped this photo from the ship's launch. Toga partygoers (l to r) Al, Mary, and Frances and Wally Leiden — he's a clinical psychologist at Lovelace Medical Center.

## Unusual Vacation

# Two Weeks Before the Mast

Shiver me timbers, hoist the mizzenmast, and all that good nautical stuff — the old days of sailing ships are not entirely passe. One can still thrill to the ocean spray slapping at the cheeks while towering billowing white sails catch the playful breezes as the sleek barquentine slices through the clear, blue water. And all of this can be had without such baroque inconveniences as bloodthirsty buccaneers, scurvy, or keelhauling.

Proof of this comes from Al (5231) and Marian Marrs who in May clambered aboard the good ship *Fantome* for a two-week windjammer cruise in and about the Bahamas. Originally built for the Duke of Westminster (we all remember *him!*), the ship was purchased by Aristotle Onassis as a wedding gift for Prince Rainier and Princess Grace. When he didn't receive a wedding invitation, however, Onassis ridded himself of the *Fantome*, which eventually joined six other sailing ships that now cruise the West Indies.

The barquentine (also barkentine: a four-masted ship having the foremast square-rigged and the mainmast and mizzenmast fore-and-aft rigged. Got that?) *Fantome* is 282 feet long, weighs 3000 tons, and has four 190-foot-high masts.

"In 1979, while I was on a job assignment in New England, we took a week's cruise on a schooner off the coast of Maine," says Al.

"We loved it — and then we heard about similar cruises in the Caribbean," adds Marian, "and decided to try one. We flew into Nassau on a Sunday afternoon and boarded the *Fantome* on Monday evening. The next two weeks we spent leisurely cruising the Bahama islands."

"The ship anchored off a different island every day — some uninhabited," continues Al. "We usually spent the day snorkeling — others hiked, swam, hunted sea shells, fished, or just plain loafed."

The Marrses tell of "rowdy" parties with the passengers dressing up as 17th century ne'er-do-wells. For variety, the captain threw toga parties in which bed sheets provided the only apparel (no safety pins allowed).

"The *Fantome* is a large ship," says Marian. "It accommodates 126 passengers plus a full crew. We had a small cabin with

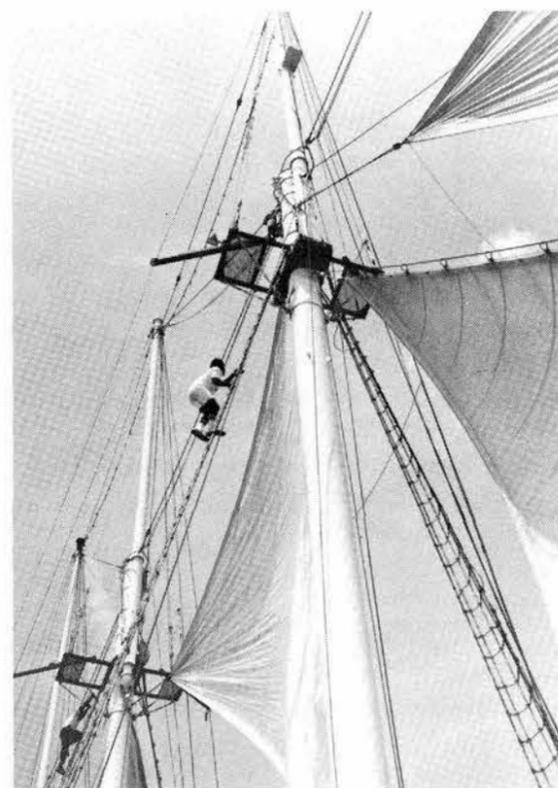
two bunks — it included a very small bathroom with a three-in-one shower, john, and sink arrangement like an RV's.

"While snorkeling, we saw absolutely gorgeous and exotic fish. When we hovered over a reef, tiny fish emerged and surrounded us. I recall a very friendly white angel fish that touched our fingers with its mouth. The fish are very tame, although we were warned about barracudas and about stepping on stingrays.

"The water is also strikingly clear," continues Marian. "Close to shore, it's light green, farther out an emerald color, and out deeper a lovely royal blue."

No shortage of victuals and grog rations aboardship, the Marrses report: "You only eat about six times a day," says Al. "At 6 a.m., while the crew swabs the decks, we were served sweet rolls and bloody marys. Then a regular breakfast at 7:30 — eggs, pancakes, that kind of thing. Lunch is served on the beach — salads, a couple of meats, a beer bar. Swizzle time at 5 — rum swizzles accompanied by fish, conch (similar to abalone), and other munchies. After that there were still two servings of dinner and a late snack to get through. The ship offered early morning exercise classes, but I didn't notice too many participants."

The cruises last a week — from Tuesday to Sunday — but Marian and Al allowed themselves to be shanghaied for a second week, upon which they were given the titles of "old salt and saltine." They spent a day



CREWMAN clammers up *Fantome's* rigging. Passengers are not expected — or allowed — to climb the rigging higher than 12 feet.

in Freeport, a day on Bimini, and another day in the city of Nassau admiring its beautiful gardens, trained flamingoes, and fine basketwork.

Sums up Al: "It was so totally relaxing, no radio, TV, or telephone — and nobody cared."

**Logistics:** A week-long cruise costs \$900 for two persons; for the second week, there's a \$50 discount. Al recommends shopping around for the best airline fare to Nassau.

## WELL, CALL E.T. AND ASK HIM



The fields of extraterrestrial life, extra-solar planets, origin of life, theoretical biology, interstellar travel and communication, extraterrestrial intelligence and civilization, and SETI (search for extraterrestrial intelligence) have no generally accepted collective nomenclature. Suggestions include astrobotany, astrobiology, bioastronomy, astropalaeontology and astroarchaeology, cosmobiology (unfortunately linked to astrology), and biocosmology, bioastronautics, space biology, planetary biology, intellexobiology, and exosociology, each of which fails as a general term in taking as axiomatic that intelligence, technology, and civilization require life or society, an arguable and imprudent assumption.

— Robert A. Freitas, Jr., in *Nature*

## ITALY IN SPACE



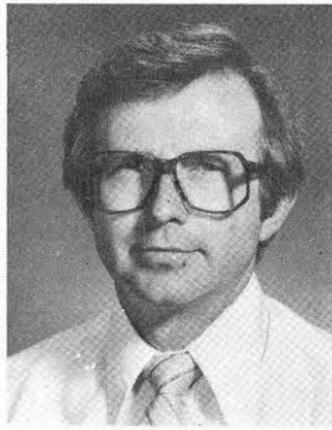
Which country in Europe spends most on space technologies as a proportion of its total research and development effort? France, you say? No, the answer is Italy, and by a long way. Some 9.5 percent of Italian research spending was devoted to space in 1979, according to European Community statistics. France weighed in at 4.5 percent. Behind the increase is a national space plan, designed to bring Italian industry into the space age. The plan got under way in 1979-80. Present key projects: ITALSAT, a telecommunications satellite for launch 1987; IRIS, an upper stage for the US space shuttle; TSS, a "tethered satellite" that the shuttle will tow through the upper atmosphere; and (with the Dutch) SAX, an X-ray astronomy satellite.

—*Nature*

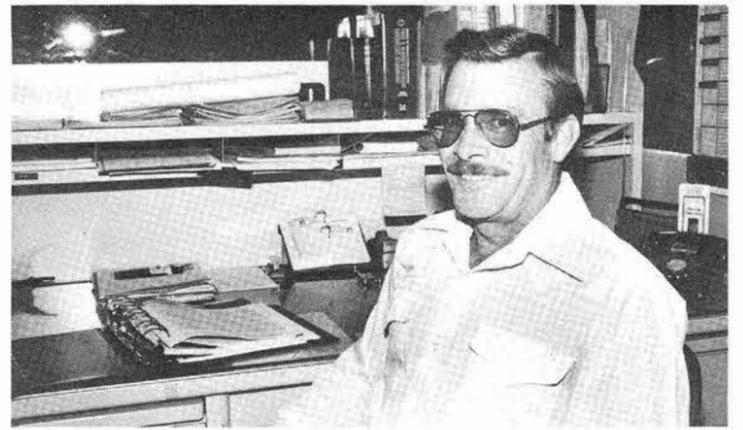
# MILEPOSTS

## LAB NEWS

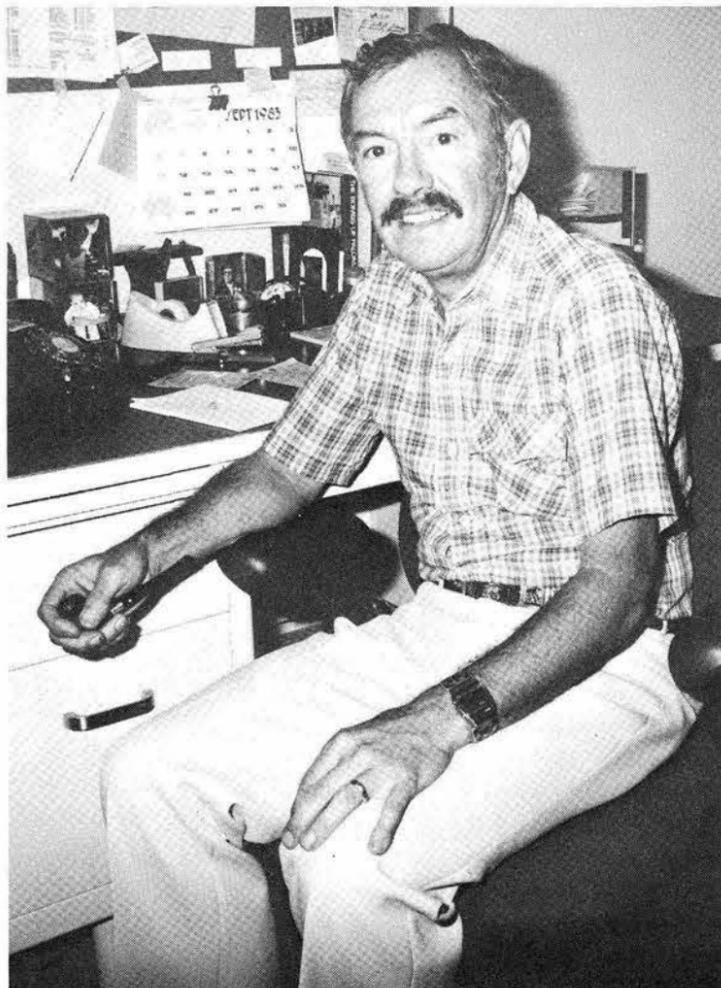
SEPTEMBER 1983



Jim Harris (2524) 20



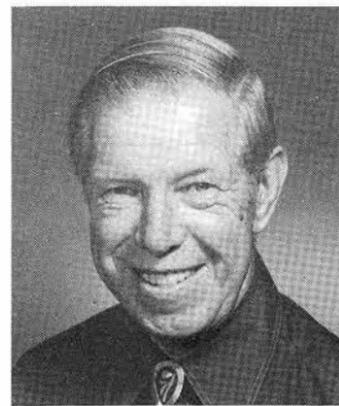
Tom Hobart (7481) 20



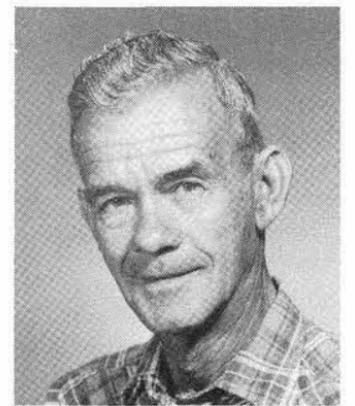
Bob Wilde (5216) 25



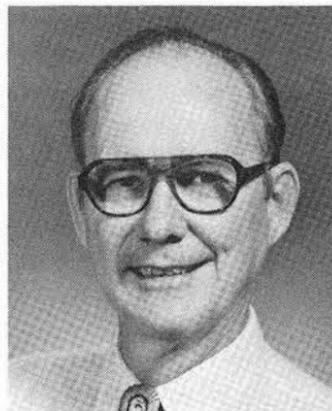
Mike Rex (3521) 15



Floyd Stake (7658) 30



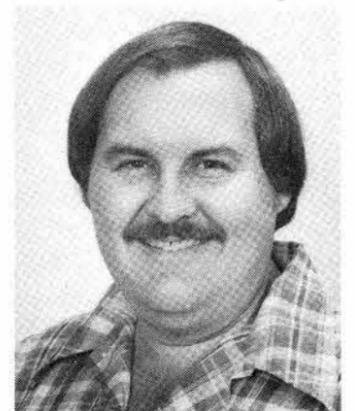
Troy Kersey (3618) 25



Bob Thompson (1641) 25



Tonni Nunley (8420) 20



Al James (8262) 15



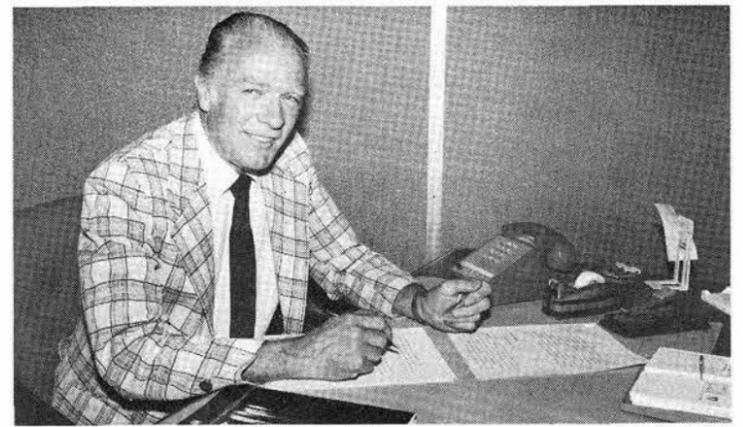
Judy Hafner (8420) 20



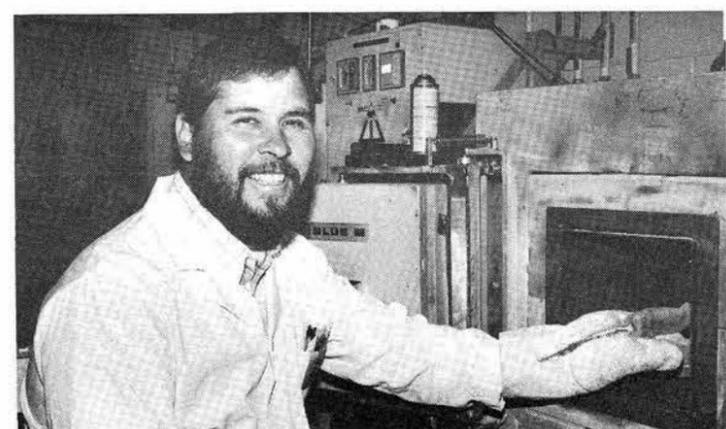
Paula Neighbors (8274) 20



Don Gallagher (8262) 25



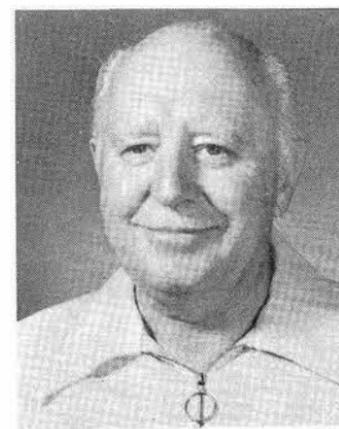
Jim Rogers (400) 30



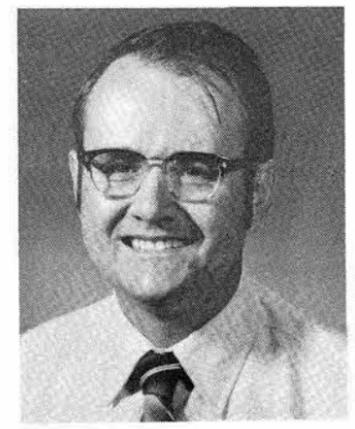
Ronnie Stone (7472) 15



John Marion (8101) 25



Jim Spirup (3431) 25



Sam Wallace (6257) 15



The ECPro

# Come Out For The **Employee Concert Party!** Monday, Oct. 3, 11:30-1 Library

UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

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**Deadline: Friday noon before week of publication unless changed by holiday. Mail to: Div. 3162.**

## RULES

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

## MISCELLANEOUS

JACKMAN WHEELS, four 15" x 10" w/6-hole bolt pattern, comes w/fair tires, \$100. Irwin, 822-1831.

KIRBY Classic Omega, \$100; duplicate bridge holders, aluminum, numbered 1-24, \$20; pipe art, Nouveau, Sterling & Meerschau, \$50. Gregory, 268-2022.

RANCH OAK bunk beds, complete, chest, desk, \$250; Starck piano, \$600; sewing machine, cabinet, stool, \$80. Duimstra, 299-6106.

SEWING MACHINE, fully reconditioned, Necci, complete w/90-day service agreement, manuals & sewing table, \$225. Williams, 299-8986.

FURNACE, Payne, 75K BTU; sectional couch; girl's 20" bike; white provincial drawer; elec. grill; lg. overstuffed chair. Gabaldon, 266-0028.

BLACK female mutt, looks like small shepherd, spayed, has all shots, 11 months, free to good home. Anderson, 881-0934.

20-GAL. aquarium, complete w/stand, gravel, pump, & plants, \$20. Worrell, 299-0381.

UNM Basketball season tickets, Section 25, Row 18, Seats 9 & 10, \$183. Martinez, 292-6817.

YAMAHA alto saxophone, \$400. Easterling, 298-7083.

HASSOCK/trampoline, blue velour, 39" dia., \$150; radio / stereo / tape console, 4-sp., \$150; Samsonite, 26", 24" & beauty case, \$50; gold tote bag, \$15. Brinegar, 299-7887.

TI 99-4/A home computer w/typing cartridge, \$95; metal aquarium stand for 20- or 29-gal, 12"d x 30"L x 30"h, w/wood shelf, \$15. Hammond, 296-9758.

RIMS w/tires & hubcaps for VW bug, 4 at \$15 ea.; rims w/tires for Olds Delta 88, 2 at \$15 ea. Scales, 298-6254.

TRAILER HITCH, 300 lbs. tongue wt., 3000 lbs. gross wt., \$25. Benton, 877-2473.

TROMBONE, King Cleveland 605, \$165. Yio, 265-2205.

CLARINET, Bundy w/case, \$190. Bernard, 821-2568.

5" TV, \$70; police scanner, \$80; SW radio, \$55; 30/30 Winchester 99

mini revolver, \$80. Sanchez, 243-7016.

LAWN MOWER, power, needs work, best offer. Eldredge, 881-4528.

TIRES-WHEELS: 3 7.00x15 snow tires on 6-226 Jeep wheels, 5-bolt holes, 5 1/2" diam. circle, \$20 for all. Schwoebel, 298-4295.

VACUUM cleaner, compact, \$45; trumpet, Bundy, \$100; wall heater, gas, \$50; coffee table, walnut, \$25; end table, \$20. Padilla, 296-7471.

DOUBLE-SIDED gas heater; IBM ex. typewriter; wrought iron hanging light fixture; trade for refrig., washer, gas stove. Baker, 881-9439.

VIVITAR F4.5 80 to 210 zoom, macro, \$110; Vivitar F2.8 28mm wide angle, \$80; both \$175, both PK mount. Anderson, 265-0403.

BUNK BEDS, solid maple, \$175. Shire, 821-8460.

VIDEO CAMERA, color, RCA CC006, power zoom, macro, & more, \$400; exercycle, \$40. Stoker, 821-3354.

SOFA, Ethan Allen wing back, rust tweed, \$175. Jones, 299-6186 after 6:30.

ROYAL manual typewriter, \$15; pole shelves, \$10; 4' chain link gate, \$15; candelabra hanging light fixture, \$5. Bisbee, 293-0356.

REFRIGERATOR, Admiral, 15 cu. ft., gold, \$250. Clement, 299-1501.

EARTH-TONE plaid sofa, \$50. Jackson, 293-0988.

UPRIGHT FREEZER, 19 cu. ft., \$125. Wilkins, 281-1869.

MAYTAG Washer, \$175; GE dryer, \$80. Baney, 294-8970.

EARLY AMERICAN dining table, 42" round w/4 matching chairs & ext. leaf, \$165. Snelling, 294-5751.

SKI BOOTS, 7 1/2-8, Nordica Hurricanes, 1 1/2 seasons, \$55. Kelly, 299-7190.

CEILING FAN, Satellite, 42", color brown, never used. Gutierrez, 821-8476.

SKIS, 130cm Elan, Geze bindings, \$45; Scott boots, size 7, \$20; Caber boots, size 7 1/2, \$15. Holmes, 292-0898.

GARAGE SALE, Sat. & Sun. Oct. 1 & 2, 9 a.m. to 3 p.m. 8609 Hannett Ave. NE. Hoke.

DRESSER & mirror, contemporary style, dark wood, \$75. Walter, 298-0471.

HUSQVARNA 30-06 w/Savage scope, \$225; K-2 comp 610 skis, 200 cm w/Marker bindings, \$150; Caber Bio-Rythm ski boots, 10 1/2, \$70. Mason, 281-3052.

PICKUP rear windows: 2 Ford type, 1 Chev; rear window for '69 Pontiac; windshield for '67 Impala. Chavez, 842-6374.

ATARI 2600 w/11 cartridges, including Ms. Pac Man, Pitfall, Defender & more, \$150, will bargain. Anthes, 884-3644.

SKI BOOTS, Nordica, size 5, \$15; skis, 120cm, \$35; U-Haul boxes, sm. 60¢, med. 90¢. Roeske, 344-5659.

WOMEN'S shoes, size 11; folding vinyl door; light fixtures; clothes bags; parson's tables; accountant's adding machine. Mozley, 884-3453, 884-5225.

NIKON CAMERAS & lenses. Laskar, 299-1024.

FIREPLACE SCREEN, antique brass w/glass doors, fits openings 25"-28" high x 38"-44" wide, \$50. Byars, 294-6676.

SKI BOOTS, San Marco, 8 1/2, used once, \$65; student trombone, \$200. Colgan, 344-3776.

GARAGE SALE, Sat., Oct. 1, 8:30 to 4:30, many baby items, including crib; jewelry, flower pots, more. 8525 Princess Jeanne NE. Borgman, 299-6010.

ARVIN fireplace heat exchanger w/glass doors, \$30; 5-bulb light fixture, \$10. Harrington, 296-8208.

SOUND MOVIE CAMERA, Chinon 60 RXL, Super 8mm, 6:1 power zoom lens, boom mike, \$225. Molecke, 296-5850.

WOMEN'S SHOES, brand new Amano (Stanley Philipson) open-toe, sling-back pumps, sizes 8 1/2 & 9, \$18 pair. Benderman, 298-7354.

SAMOYED PUPS, male, 8 wks. old, AKC, \$200 ea. Wrobel, 293-0283.

LOVE SEAT & matching king size bedspread, rust & blue; blue velveteen chair. Hulme, 299-7715.

KENMORE auto. gas clothes dryer, gold, \$200. Carr, 281-1632.

COMPUTER, TRS-80, level 2, expansion interface, disc, cassette, dot matrix printer, word processing SW, manuals. Hellstrom, 822-0613.

WARDS port. sewing machine w/carrying case, \$35. McGirk, 884-4592.

FOUR 10 pt. sapphires in 14 kt. gold settings, can be used in setting or loose, all \$40. Burstein, 821-6688 after 5:30.

WEED trimmer, battery powered Black & Decker, 1 1/2 yrs. old, \$15. Renschler, 293-5782.

VIOLIN, full size, bow & case. Moss, 298-2643.

QUEEN size mattress & foundation, Sears special edition, \$50. Knapp, 294-6359.

7-PC. dinette, \$65; wingback chair, Early American, \$50; police scanner, 8-channel, \$100. Gendreau, 268-3436.

PRINCESS ring; rubies & opals in gold crown setting, from Burma; recent appraisal, \$500. Neal, 294-3088.

OCT. 1, 5-family sale: Book of Knowledge, lamps, rugs, clothes, bird cage, chairs, shoes, many other items. Self, 296-4137.

USED counter top, U-shaped, \$5; cast iron double sink, white, \$8. Hall, 298-8617.

GARAGE SALE, Oct. 1-2, 9-6 p.m., 3708 Trinidad NE: toys, Atari, hoist, clothes, Oberkampf, 292-4366.

COMMODORE Super Pet computer system, dual processor & display, dual disk drive, printer, manuals, etc., complete system, \$2000. Am-dahl, 293-6076.

KENMORE zig-zag sewing machine w/cabinet, 26 decorative stitches on cams & buttonholer, \$100. Chorley, 296-1454.

METAL conference table, \$75; wooden desk, \$39; coffee table, \$50. Gurule, 294-6541.

BOY SCOUT uniform, long-sleeve shirt, long pants, cap & belt, \$15. Mora, 821-6759.

CPR course for dependents, 4-hour sessions each of 2 consecutive Saturdays, outside tech area. Marion Wilde, 293-2652.

**TRANSPORTATION**

'70 FORD 19' self-contained mini motor home, 79K miles, new tires, \$5900. Cheek, 268-1805.

'75 HONDA motorcycle, 750 super sport, 3600 miles. Ortega, 296-7090.

'79 FORD Fiesta 2-dr. hatchback, \$2300 OBO. Key, 293-9636.

'68 FIAT 850 Spyder convertible, Italian classic, mostly restored, runs, white w/black top, \$1200. Crompton, 299-5569.

'76 HONDA 360, elec. start, warranty, \$495 OBO, terms. Ortiz, 243-4197.

'78 CHEVY custom van, executive pkg., extras, \$7995. Ripi, 293-2553, after 6.

'72 VW super beetle, new upholstery, 96K miles, \$1850 OBO. Mora, 821-6759.

'77 FORD Granada 2-dr., white, low mileage, recent brake job, \$1750. Bennett, 296-8041.

'79 DATSUN 200SX, 5-sp., AC, AM-FM, reg. gas, \$3500 (\$400 below Blue Book). Wilkinson, 281-3835.

'82 BUICK Regal Limited, AC, PS, PB, cruise, AM-FM-cass., V6 eng. \$8000. Baney, 294-8970.

'76 CHEV VAN, 3/4 ton, full conversion, 400-V8, AT, AC, PS, PB, carpet, captain chairs, couch, overhead console, \$5850. French, 293-3451.

'76 HONDA CB750, fairing, back rest, 15K miles, \$1400. Hollingsworth, 281-5426.

'75 DODGE Dart-Sport, AT, 6-cyl., 2-dr., sunroof, stereo/tape, \$1300. Frederickson, 268-9714, 10:30 a.m.-12 or after 5.

'80 YAMAHA SR250G Exciter I, 3400 miles, elec. start, \$750. Hoke, 298-6619.

BIKE, English type w/upright handlebars, good tech area trans., luggage rack, fenders, \$25. South 14 Village Project, LAB NEWS, Bldg. 814.

'78 COUGAR 4-dr. Brougham, PB, PS, AC, AM-FM-cass, other extras, one owner. Priddy, 884-8392.

MODEL A FORD, 1929 model roadster, rumble seat, yellow w/brown fenders, partly restored, all parts, \$6000. Potter, 293-8218.

BICYCLE, girls, 20", banana seat, \$20. Roeske, 344-5659.

'72 GMC "Jimmy" 4-wd, 4-sp., one owner, 88K miles, \$2500 OBO. Andes, 268-8951.

'70 TRIMPH motorcycle, TR6R, 650cc, mostly stock, 900 OBO. Madden, 296-1082.

'71 DATSUN 4-dr., one owner, 68K miles, R&H, \$1200 OBO. Street, 294-6217.

'77 PONTIAC Grand Lemans 2-dr., AC, all power, under 40K miles, \$3100 OBO: '69 VW hitch, \$20. Johnson, 255-5427.

'73 DODGE Coronet, needs work, \$500. Higgins, 299-4302.

'81 MAZDA GLC sport, FWD, one owner, AC, 5-sp., new Bridgestone all-weather tires, \$5000. Beezhold, 296-5761.

'80 CHEV. 4x4 Luv pickup, custom paint, Jackman wheels, lg. custom insulated camper shell, 28K miles, CB, cassette player, \$4975. Bland, 265-6286.

'73 CHEVROLET Impala 4-dr. HT, green, white top, AC, AT, PB, PS, \$800. Rowe, 821-8251.

'75 CHEV Scottsdale, 1/2-ton pickup, AT, PB, PS, AC, insulated camper shell. Rakoczy, 266-9544 after 6.

'81 THUNDERBIRD, low mileage, \$6500 firm; '80 KM-100, \$700. Miller, 822-8729 after 5.

'78 HONDA Hawk motorcycle, 400cc, windshield, \$695. Coalson, 298-0061.

'78 FIAT X/19, 32K miles, AM-FM-tape, Monza wheels w/Pirelli P7 Rally tires, \$3500. Akins, 867-3967.

'80 PLYMOUTH Champ, AC, AM-FM stereo, sunroof, front wheel drive, 28 mpg, 36K miles, new tires, make offer. Hamlet, 255-8146.

'73 AUDI 100LS, recent engine overhaul, nearly new tires-battery-

shocks, \$1200. Senter, 255-0594.

'71 BALBOA 20 in slip at Cochiti, trailer, 4 sails, motor, all equip., \$5800. McCaughey, 268-6855.

'80 PLYMOUTH Champ, 36K miles, 32-35 mpg town, \$2800 OBO. Assink, 345-2957.

ALL TERRAIN vehicle, Pacesetter model WRPIII tricycle 5PSI, 21 x 11 balloon tires, 5 hp engine, \$325. Cover, 299-5015.

'71 BRONCO, 4WD, floor shift, \$2100. Lopez, 265-3296.

## REAL ESTATE

3-BDR., 1 1/2 bath house w/lg. den, upper 60s, near schools, shopping & golf course. Cooper, 884-2814.

3-BDR., bath, kitchen, LR, util. rm, cost \$35,244. 1401 Wheeler SE. McKinney, 242-3085.

FIVE ACRES Indian Hills (Edgewood), water, utilities on property line, \$22,500, will discount for lg. down payment. Gordon, 298-6575.

TWO ACRES, 7 miles east of Tramway, \$250K home adjoining lot, elec., proven water, \$39,500, assume 8 3/4% loan. Ray, 298-0408.

## WANTED

LAVA LAMP, good working condition. Humphreys, 296-8883.

FEMALE roommate, \$225/mo., 1/2 utilities, own room & bath, Menaul & Louisiana. Garcia, 881-9069.

BASKETBALL GOAL, preferably w/pipe support. Easterling, 298-7083.

SOMEONE to re-assemble a self-storing typewriter stand in an old wooden desk. Orear, 256-1941.

AVON inflatable boat/raft; looking for used one w/small motor. Vick, 266-1663.

CHRISTMAS COVER for LAB NEWS. Artistic Sandians or retirees with an existing painting (vertical format, color) or interested in creating one should call Bruce Hawkinson (3162) on 4-1053.

ROOMMATE to share 2 bdr., 2 bath apt., 1300 sq. ft., pool, tennis, etc., \$207, utilities paid. Gibson, 881-6894.

WAYSIDE GARDENS fall 1983 catalog. Mozley, 884-3453.

GREEK-ENGLISH lexicon by Liddell/Scott, to buy. Dalphin, 265-4029.

FEMALE non-smoker for furnished bedroom w/private bath in NE Abq. home. Douglas, 821-8551.

FLUTE & music stand, preferably American made; Girl Scout Cadet uniform, size 10-12. Padilla, 831-3500 after 6.

EXPERIENCED house sitter seeks house to sit, references, handy w/tools, dogs, cats, wombats, etc. Benson, 265-1620.

NEED weekend worker, yard work & painting, must have transportation, \$3.50/hr. Thalhammer, 298-8521.

FEDERAL 209 shotshell primers, will buy or swap for Winchester or CCI 209 primers. Worrell, 299-0381.

## LOST & FOUND

LOST in Area I, 10-sp. bicycle, Raleigh, red w/white carrier, good condition, old. Key, 4-3043.

## Coronado Club Activities

# Crab Legs Tonight; Ice Cream Tomorrow

TONIGHT at Happy Hour, The Saints march in with an all-around swinging selection of variety tunes. The buffet (no menu service) starts at 6 p.m. with a fantastic spread of crab legs and accompanying goodies. The tab is \$8.95. Happy Hours start right after work with special prices in effect until 8:30 p.m. when the music starts.

TOMORROW is a special night for kids. In the first place, the movie is an all-time favorite animated Disney film *Bambi*. Second, the Club's famous selection of super sandwiches is available at 5:30, and third, the Club is offering an ice cream bar special where you build your own sundae from a selection of toppings. Price is \$1.50. The movie starts at 7. Admission is 50 cents per person.

NEXT FRIDAY, Oct. 7, a country and western favorite, Western Flyer, holds the bandstand while chicken breast teriyaki at \$4.25 is the dining room special. Karen Edwards instructs free western dance lessons from 7:30 to 8:30.

ON TUESDAY, Oct. 11, try a prime rib buffet from 6 to 8:30 at a two-for-one special price of \$10.95.

NEW PRESIDENT of the Coronado Club board of directors is Jack Mortley (7521). Dick Shepardson (7000) is vice president; Adele Caldwell (143), secretary, and Eddie Gallegos (122), treasurer. Newly elected board members include Pat Conlon (7473), Frank Biggs (7112), Bruce Davis (2300), and Shirley McKenzie (7632).

Continuing terms on the board are Charlie Clendenin (2611), Phyllis Sanchez (3510), and Don Graham (3162). Dick Chapman (144) is the Sandia-appointed representative and Rick Sneddon (DOE) is the DOE rep.

LUNCHES during the week are a delight at the Coronado Club. Chef Hank Perez, recovered from a foot and ankle injury, has returned and revitalized the salad bar at the Club, added several specials daily, and offers three different soup selections. His green chili stew continues each day along with the sliced steamship round of beef.

## Wall Slide '83

Don't forget the wall slide contest on Oct. 25-26. As announced in the Sept. 2 LAB NEWS, all participants are eligible for the drawing for the grand prize — a weekend for two in Durango with lift tickets at Purgatory. More details from Larry Suzuki (3332).



SANDIA'S EXHIBIT at the State Fair this year included two movies, one produced by Motion Picture-Video Services Division 3153, on the scientific and technical applications of high-speed photography and seven instrumentation-type cameras used to analyze events that take place in the realm "beyond normal vision." The exhibit itself was designed by Joe Laval and constructed by Andy Landis (both 3163). Its contents were furnished by these Sandians: (from left) Bruce Hansche (7551), who designed the Schlieren photography display; Al Sehmer, Billy Pierce, Robby Robertson, Curly Saxton, Joe Llamas, and Bob Hughes, all of whom are in Photometrics and Optical Development Division 7556. Employees from that division have taken turns running the exhibit throughout the Fair. The new location on the Fair's Main Street attracted more than 100,000 fairgoers to the exhibit this year, a significant increase over previous years.

## Colloquium

### Trouble in River City — and That Ain't No Jazz!

*Why don't you come along with me  
Down the Mississippi?  
We'll take a trip to the land of dreams  
From the Mississippi down to New Orleans.*

The lilting words of this old jazz lyric will someday be obsolete — Ol' Man River won't be flowing down through New Orleans anymore.

According to Raphael Kazmann, retired LSU professor and now a consulting engineer in Baton Rouge, the Mississippi River will someday create a new route to the Gulf of Mexico for most of its water.

"At a point between Natchez and Baton Rouge, a channel known as Old River will take most of the river's discharge and transfer it to the Atchafalaya River," says Kazmann. "This will be a major disaster to the entire region lying south of the point of diversion.

"The Old River/Atchafalaya River course is a steeper and shorter route to the Gulf than the present one. For at least 265 years, 80 percent of the Mississippi's water has been maintained artificially in its present route.

"When it goes, it'll happen all at once," he says. "Most likely during a flood. Morgan City on the Atchafalaya River would be flooded permanently, and New Orleans will be a salt-water port. With 80 percent of the Mississippi's water diverted to the Atchafalaya, the remaining flow won't be able to keep the sea water out of the delta — the sea will come up past New Orleans."

Kazmann described the efforts since 1950 to prevent the channel shift. In 1954, Congress authorized construction of a concrete structure — a sort of overflow spillway — to be built in the Old River vicinity to try to control the diversion of water. This structure, called the Old River Control Structure (ORCS), was put into service in 1962; it's part of the Old River Control Com-

plex that includes a lock and dam and navigation channel.

One might ask what prevented the river from seeking its natural channel long before the Corps of Engineers came on the scene — the Indians and early French settlers weren't into big hydraulic projects. Kazmann explains that the Atchafalaya River was once a swamp — a river channel with an immense logjam — that acted as a natural barrier to the Mississippi and prevented it from flowing through the area even though it was the river's natural route to the Gulf.

How long the Atchafalaya Swamp had existed no one knows; it was already there in 1718 when French settlers arrived. Over the next 200 years, the locals diligently burned the felled trees to reclaim the swampland. The gradual removal of the log jam caused the Mississippi to start shifting its course.

In 1973 a major flood almost undermined the ORCS; it caused extensive structural damage. In 1980, the Corps began work on an auxiliary structure to be completed in late 1985 that will reduce stress on the original structure. The latter will then be taken out of service for repairs.

Will this project save New Orleans? "No," says Kazmann, "it will just postpone the inevitable; the Mississippi will finally achieve its new course." The Baton Rouge-New Orleans area obtains water from the Mississippi for drinking and industrial use; if the river changes course, the sea water entering the delta from the Gulf will ruin the area's industrial complex.

"This will be a catastrophic event although it probably won't happen until the 21st century," says Kazmann. "The situation is similar to a major West Coast earthquake — it's bound to happen but we don't know when. Every flood year I get lots of calls from people wanting to know if this is it."