

New Device Replaces Telemetry

Field testing of recoverable test units at Sandia is a little easier and a little less expensive these days. Dave Ryerson and Gene Hauser of Instrumentation Development Division 5336 have developed a simple and inexpensive device that eliminates the need for radiofrequency telemetry in experiments with recoverable test units.

Called SDACS (for stored data acquisition system), the device stores the test data in its memory and then reads the data out when interrogated upon recovery. It requires no ground support during test operations and only limited support (a device with a commonly available RS-232 serial interface) for readout after the test.

SDACS is finding applications in test programs for parachutes, sea floor penetrators, balloon instrumentation, a study of B52 bomb bay temperatures, an Army parachute heavy equipment delivery system, and the Navy's Advanced Light Weight Torpedo.

"The torpedo program illustrates the full capabilities of SDACS," Dave says. "The test sequence uses three different operational modes and data sampling rates. The SDACS records the environmental

(Continued on Page Two)

A Fiberoptic First at NTS

Two new kinds of fiberoptic gauges — a strain gauge and a pressure gauge — are being designed and tested by Jon Weiss and Jim Stoever of Field Measurements Division 7116. Both gauges are sensors that detect changes in light intensity.

Optical fibers are long strands of light-transmitting glass about the thickness of a human hair. They consist of a core of glass clad with a material of lower refractive index. Light inside the core is guided by total internal reflection. Some loss of light around bends always occurs. It's this bend radiation that is the basis of the gauges developed by Jon and Jim.

Both of these new fiberoptic gauges are being developed primarily to measure strains and pressures near other instruments during nuclear weapons tests at Nevada Test Site. Interference from the intense electromagnetic radiation such blasts produce often renders standard electrical gauges and copper cabling useless during the key measurement period. But the new optical gauges are unaffected.

"In regard to bend radiation, if the optical fiber has only gentle curves along its length, very little light leaks from the core, but if the fiber is bent severely — for instance, into the shape of a 'U' a quarter of an inch wide — many of the light rays strike the core/cladding interface in the bend region at too high an angle to be totally reflected internally, while other light rays experience loss around the bend through a



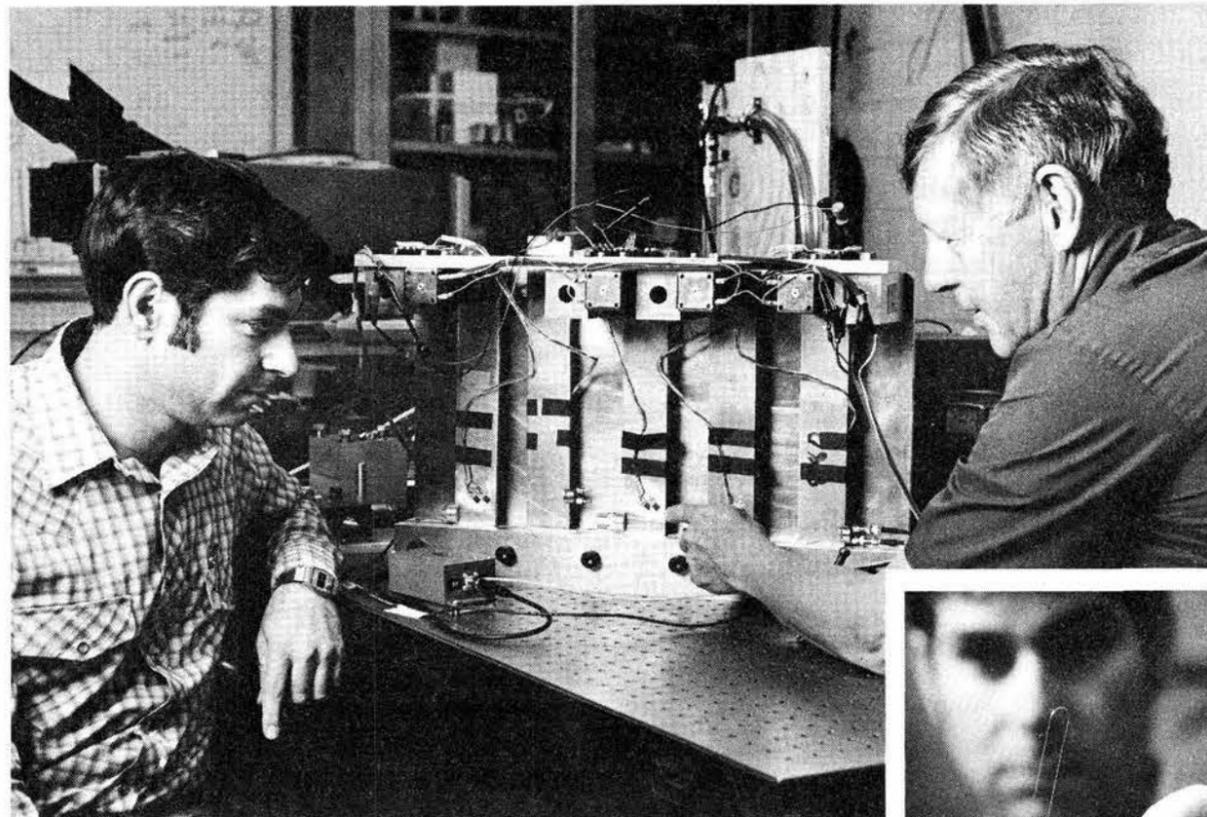
DAVE RYERSON (5336) displays circuit board that is the heart of a new on-board data acquisition system. Co-developer Gene Hauser (5336) is at right. The new system, which requires no radio telemetry or ground support, is used on test programs with recoverable test units.

LAB NEWS

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PREPARING for Midas Myth, an underground nuclear test at NTS, are Jon Weiss and Jim Stoever (both 7116). Jim points to one of the two new kinds of fiberoptic gauges they've developed to measure strains and pressures during weapons tests. In the close-up view at right, Jon holds one of the U-shaped fibers that can be used as either a pressure gauge or a strain gauge.

more subtle process known as tunneling. Thus, much of the light escapes."

Jon's strain gauge is based on the modulation of this light loss from a bend. In a tightly bent "U," the amount of light loss varies measurably when the degree of bending changes even slightly due to strain on the surface that the optical fiber is fixed to.

The process of fabricating the strain

gauge is begun by Clint Tuthill of Glass Formulation and Fabrication Section 7472. He pulls the fiber from a rod of glass and then heats it so that the fiber can be bent to the desired degree. "We then epoxy the U-shaped fiber to the surface that is to be measured," says Jim. "The epoxy doubles as the cladding material."

Any deformation of the surface will
(Continued on Page Four)

Antojitos

Ethereal vs. Mundane--As I write this, I'm also watching a flock of errant hot-air balloons from the Balloon Fiesta drift slowly south across the parade ground and Tech Area I. For me, at least, they're almost hypnotic: an elemental shape--an inverted teardrop, propelled horizontally by one elemental force--wind, and kept aloft by a classical element--fire. They're large, slow, and majestic. And they're probably the most natural means by which to give ourselves a natural thrill--that of looking down at our natural habitat from above--no engines, no dependence on the complexities of aerodynamic lift, not much noise, moving in three dimensions not by overcoming gravity and friction and inertia by brute force but by, literally, going with the flow.

So they appeal to the primitive in us--our cave-dwelling ancestors could have understood balloons. It's the same appeal that other elemental sports (sailing, skiing, surfing, sky-diving, hang-gliding) possess.

Yes, hot-air balloons are absolutely impractical as a means of transportation--but that too is part of their appeal. It's somehow refreshing to judge the value of something on considerations other than practicality, efficiency, utility.

Oh, for an ethereal (literally, relating to the regions beyond the earth, those once thought to be filled with ether) balloon to lift me above this mundane (from the Latin for world) desk!

* * *

And as the Sun Slowly Sets--I've been waiting for the pundits to pounce on Charles Lichenstein, the deputy permanent representative of the US to the UN, who achieved overnight fame by inviting the UN to find a new host country. Leaving to the politicians the question of whether or not his invitation should be accepted, I'll have to be the pouncer to point to his "We . . . will be down at dockside waving you a fond farewell as you sail into the sunset" and point out that, Charley, it's extremely difficult to sail into the sunset from any dock in New York City. Across the Hudson maybe? ●BH

* * *

Bonito es ver llover aunque uno no tenga milpa. (It is beautiful to see the rainfall even if we don't own a farm.)

Continued from Page One

SDACS Replaces Telemetry

strains as the torpedo drops from an aircraft, goes through parachute deployment, and rides to impact. Then it records impact data and the transition into the water and continues to record depth data. SDACS is particularly useful in applications where radio telemetry is not feasible, such as underwater testing."

Assembled from commercial components, SDACS can survive impact shocks up to 500 Gs. It is applicable to any test on recoverable units in which data acquisition speeds up to 4000 samples per second are needed.

SDACS consists of a microcomputer-based electronics package that digitizes and stores up to eight channels of analog data in a semiconductor memory. When the test unit is recovered, the data are read out via a serial data link to a printer for immediate data evaluation or to a computer for further data reduction. The system uses low-power circuitry that can be operated from a small internal battery pack for periods of hours to days. The unit consumes one watt of power and can operate from a supply of 13 to 35 volts.

The electronics system has three printed circuit cards: a central processing unit (CPU) board, a memory board, and an analog signal processing board. The CPU controls all the data-gathering procedures. The memory board stores up to 24 kilobytes of read/write memory for data storage and 8 kilobytes of read-only memory for the microprocessor program.

The system is completely controlled by its software, so it can be easily adapted to the user's needs for a particular test with no hardware changes. The user's transducers can be fixed directly onto the system's module or wired in from an external location.

Programmed data-gathering sequences can respond to an onboard clock, sensors, or pull switches. For instance, the sampling rate and sample-channel mode can be switched when a certain acceleration is sensed.

The entire system, including the built-in D-sized battery pack, is 10 inches long, 4 $\frac{3}{4}$ inches wide and 3 $\frac{3}{4}$ inches high, smaller than an economy box of facial tissues. With the eight-cell battery pack, the system weighs 8.3 pounds.

"It's basically a little computer that stores data that can be read out after the unit is recovered," Dave says. "It's simple, inexpensive, and reliable."

In the future, another memory board may be added to double the data storage capacity to 48 kilobytes. Other possible changes include a doubling of the number of analog data channels to sixteen and an increase in the maximum data-sampling rate.

EXPERTISE REVISITED

 "There has been a great deal said about a 3000 mile rocket. In my opinion such a thing is impossible for many years. I think we can leave that out of our thinking." (Vannevar Bush, 1945)

BIRDS & BEES, NO; FLOWERS, YES

 Botany was thought to be a suitable study for young women in schools and an amateur avocation in the 19th century. A surprisingly large number of American women identified themselves as being seriously interested in botany. For example, in the first published directory of American botanists in 1873, 13 percent of the 599 names are women's and that increased to 16 percent of the 982 names in 1878 Though few American women became professional botanists in the 19th century, they constitute an important overlooked constituency for the developing profession of botany.

—Emanuel Rudolph in *American Journal of Botany*



News

Here are some current volunteer opportunities for employees, retirees, and their families. If you would like more information, call Karen Shane (4-3268).

THE SALVATION ARMY is administering a program to help the needy pay their winter heating bills. It is looking for volunteers to help screen applicants.

CHRISTINA KENT DAY NURSERY provides day care for low-income families. The nursery needs volunteers to work with small groups of children in the areas of music, art, and literature.

ALBUQUERQUE INDIAN HOSPITAL is forming an auxiliary of volunteers.

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SOME 200 SANDIA RETIREES, guests and supervisory staff members gathered at Castlewood Country Club recently for the 18th annual retirees dinner. Coming the greatest distance were Elwood Ingledue and Joyce Willford from the state of Washington and Dan Dewhirst from Lake Isabella, Cal. Following the social hour and dinner, attendees heard from retiree counselor Jeff Manchester (8426) and vice president Dick Claassen (8000) about current Sandia activities and issues of interest to retirees. (Photos by retiree Elliott Dopking)



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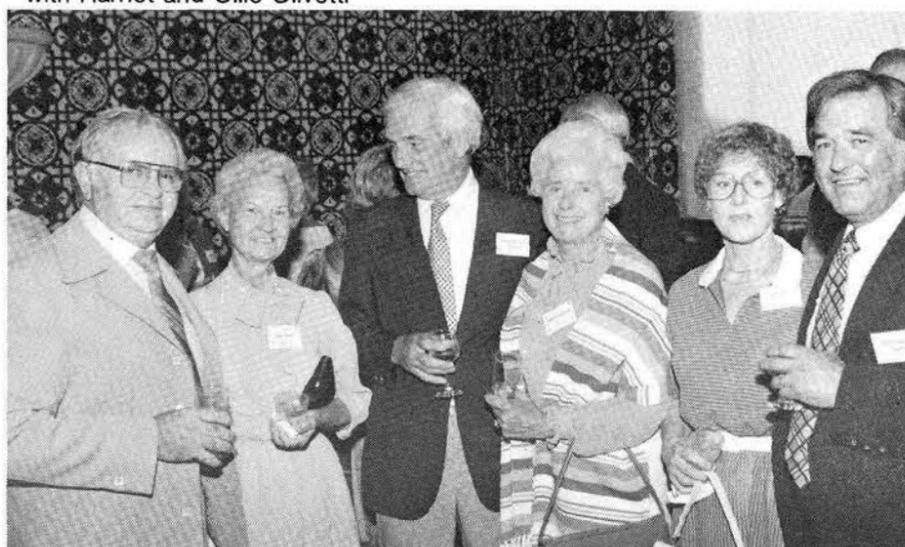
Katherine and Lou Guintard, Ray Faltings, and Chet Tarne



Leah and Roy Wilcox (celebrating their 45th wedding anniversary that night) with Harriet and Ollie Olivotti



Lee Davies, John Pearce, and Bernie Biggs



Frank and Jean Stuart, Dick (8000) and Ruth Claassen, Ruth and Marv (8260) Glaze.

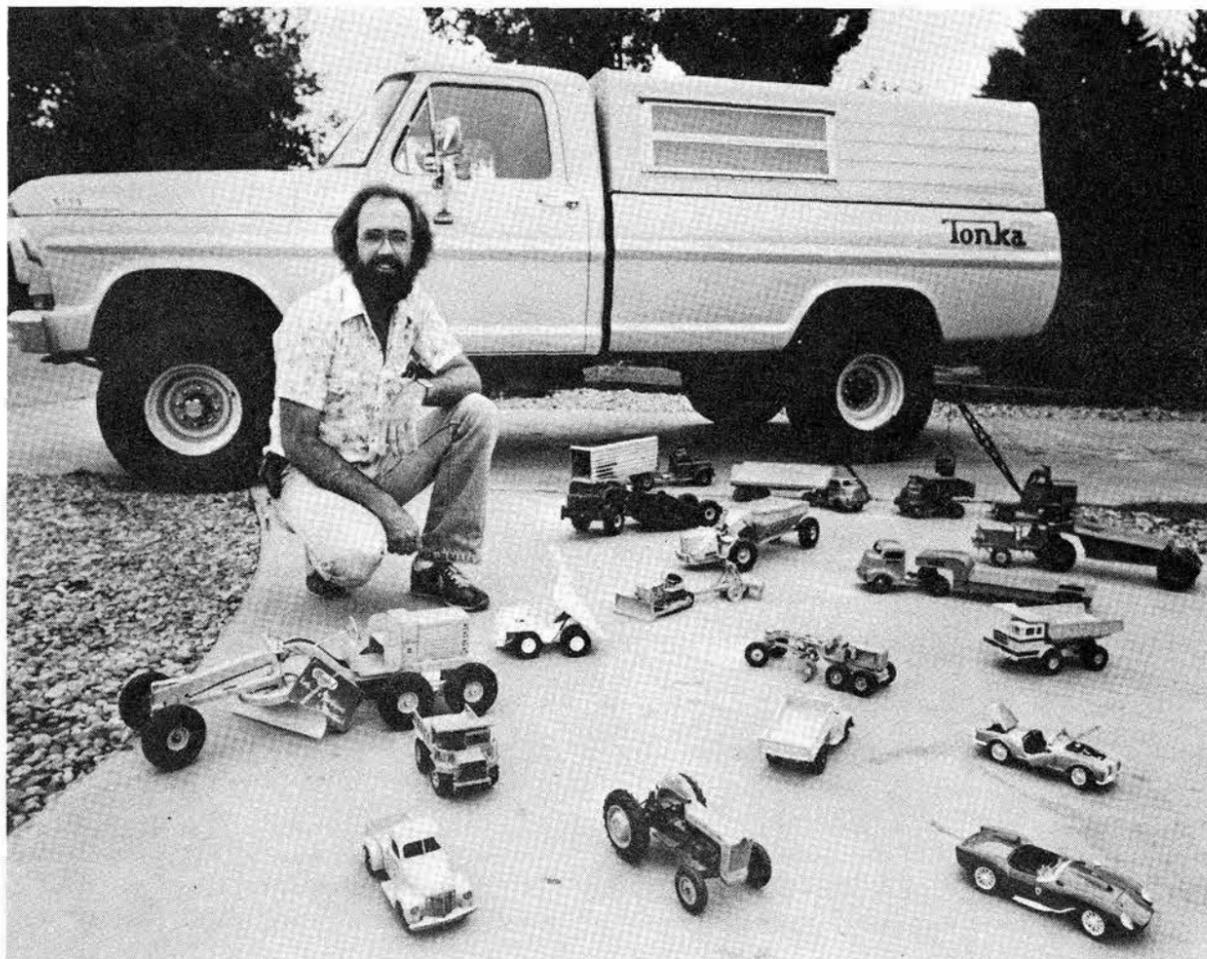
Aficionados of Automotive Antiques

Achieving adulthood didn't destroy Ken Campbell's (7541) fascination with the toys of his youth. With the enthusiastic assistance of his sons, Eric, 15, and Robin, 13, he's filled shelves in almost every room of their home with toy trucks, cars, and scaled-down replicas of construction equipment, most of them made in the 1940s and '50s (before Tonka began to dominate the industry). And they have to keep building new shelves. A recent trip to a major toy show in Gettysburg, Pa., produced about 100 additions to the collection. That puts the total number at 443.

The toys range in size from palm-of-the-hand miniatures to knee-high monsters. There are dump trucks (46 of them) and semis (88 of those), most painted in bright oranges, yellows, or reds — drab colors didn't sell. Ken says he would be hard pressed to pick a favorite, but Eric insists his dad is partial to a hard-to-find, red Smith-Miller dump truck dating back to sometime between 1948 and '53.

A vacation back home in Harrisburg, Pa., three years ago sparked the Campbells' interest in collecting old toy trucks. They retrieved Ken's childhood collection and decided it would be fun to replace the pieces that had been lost over the years. They started their search at flea markets. Soon they were subscribing to collector's magazines, and the hobby moved like a Mack down Monarch Pass. They went to their first big toy show a year ago last February in Phoenix, an event they'd like to attend again next year.

Sometimes Ken and his sons find the old toys in mint condition. Other times a well-worn model is all that's available. Then Ken heads out to the garage to restore it. The refinishing process involves stripping, sandblasting, priming, and, occasionally, crafting new parts. Ken has started doing the repainting with an airbrush so he can mix his



THE OLD SAYING "The only difference between men and boys is the price of their toys" doesn't apply to Ken Campbell (7541) and his collection of old vehicles, unless you count the big truck in the back.

own colors and do more detailed work. If possible, he prefers to pay more for an item in good condition than to have to truck with restoring it.

The oldest toy in the collection is a cast-iron truck from the 1920s that belonged to Ken's father. The most valuable is that favorite Smith-Miller dump truck. It cost \$9.95 new and is now worth \$120. The collection also includes all but one of the pieces in the old Caterpillar series and an ever-growing group of Winross limited editions — tractor-trailer rigs with sponsoring com-

panies' logos on the sides, which Eric adds to every month. The Campbells also gather as much of the original literature about their trucks as they can.

With most serious old toy truck collectors and dealers in the East or on the West Coast, Ken and his sons may be building one of the largest collections in New Mexico. However, it will be some time before their collection compares to that of their friend in Chicago, who has over 30,000 toy trucks filling his basement. "I think he buys trucks by the truckload," sighs Ken.

Continued from Page One

Fiberoptic First at NTS

slightly — if imperceptibly to the naked eye — open or close the "U." Light passing through the fiber will be lost to either a lesser or greater degree as a result. The remaining light is transmitted through the fiber to an optical detector at some other location. There the modulation of the bend radiation is translated into a measurement of strain, which is a fractional change in distance between two points on a surface. Says Jim: "At this stage, we can detect strains of 10 parts per million."

The fiberoptic high-pressure gauge works on a slightly different principle. In this case, the radius of the fiber bend remains fixed. A bare glass fiber is placed within an optical fluid — any of various kinds of oils. Optically, this fluid replaces the normal cladding material.

Under normal pressure, the fluid's index of refraction is considerably less than that of the glass. Under added pressure, the fluid

is compressed and its index of refraction increases, permitting more light to leak out at the bends.

"Increased pressure causes greater light loss," says Jonathan. "Some of this loss can be translated into a measurement of pressure."

Fiberoptic gauges do have one drawback: a nuclear device produces gamma rays that cause luminescence in the fiber for as long as the gamma ray pulse lasts. The fiber then rapidly darkens. Recovery time from darkening varies from milliseconds to hours depending on the impurity content of the fiber and the temperature.

"There's no way luminescence and subsequent darkening are going to be avoided without extensive shielding," says Jon. "But in the lab we've developed fiberoptic-based sensors, or transducers, that measure strain and high pressure in components subject to radiation. With the appro-

priate choice of fiber material for both the gauge and the leads, contamination of the data can be avoided during the most critical measurement period.

Both fiberoptic gauges will undergo field tests during Midas Myth, an underground nuclear test scheduled for February 1984 at NTS.

Adds Jon: "Although we've designed these gauges specifically for the U.S. nuclear weapons test program, the gauge designs should also prove useful in geophysical or industrial application where an alternative to electrical gauges is needed."

EXPERTISE REVISITED



"We hope the professor from Clark College [Robert Goddard] is only professing to be ignorant of elementary physics if he thinks that a rocket can work in a vacuum." (Editorial, *New York Times*, 1920)

Historian to Speak Oct. 27

"Anglo-American Culture in New Mexico" is the topic of the second in the series of cultural awareness colloquia sponsored by Dept. 3510. It's presented by a speaker with all the credentials — Marc Simmons.

Simmons is a historian, author, columnist, and translator who has been associated with southwestern history for over 20 years. His writing and research have focused on the tricultural heritage of New Mexico.

Among his twelve books and monographs are *Southwestern Colonial Ironworks*; *New Mexico, A History* (winner of 1977 History Award from Border Regional Library Association); *Spanish Government in New Mexico*; *Witchcraft in the Southwest*; *People of the Sun*; and his most recent, *Albuquerque, A Narrative History* (winner of 1983 Western Writers of America "Golden Spur" award for best non-fiction book on the West; a plug here — it's on sale at LAB NEWS office for \$17.50).

Of his colloquium topic, Simmons says:

During the long territorial period (statehood was not achieved until 1912), New Mexico retained much of the atmosphere of the Wild West. Only with the great influx of newcomers during World War II and the subsequent flowering of scientific research did the state, as part of the newly self-conscious Sunbelt, enter the mainstream of American life.

Some would debate that last statement, but the talk should be a provocative one. It's at 10:30 to 11:30 on Thursday, Oct. 27, in Bldg. 815.

Retiree Deaths

(July-Sept. 1983)

Lester Ptacek (73)	July 9
Delfido Gonzales (75)	July 30
Helen DeVore (65)	Aug. 1
Cristobal Encinias (70)	Aug. 5
Joseph Comiskey (77)	Aug. 12
Marion Phelps (67)	Aug. 18
Aubrey Hanks (87)	Aug. 20
Peter Ferketitch (69)	Aug. 22
Francis Neas (68)	Aug. 23
Leonard Underwood (76)	Aug. 26
Lewis Larsen (59)	Sept. 7
Olav Nerhus (92)	Sept. 9
Eugene Lewis (66)	Sept. 10
Charlotte Marks (65)	Sept. 17
William Moulds (76)	Sept. 30

Sympathy

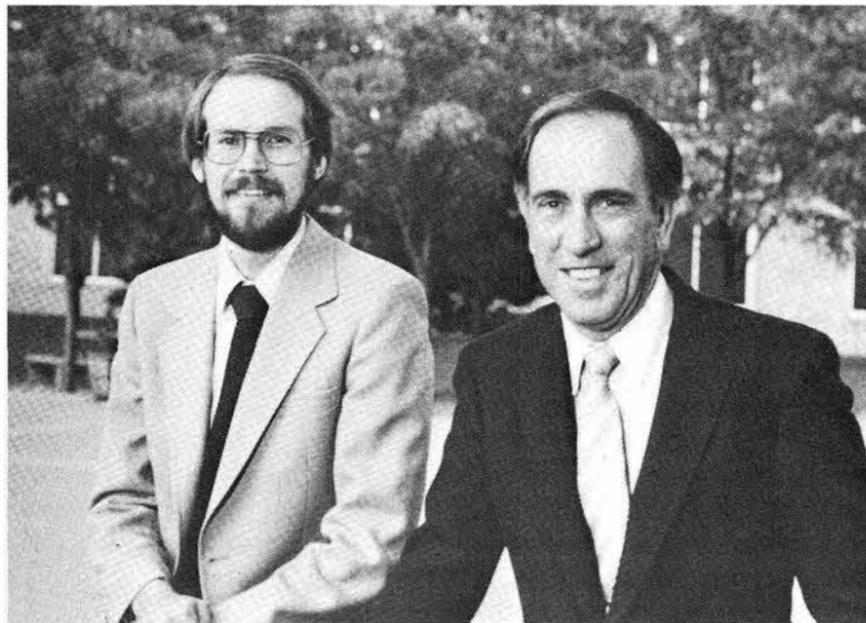
To Milton Zimmerman (5262) on the death of his mother in Rockford, Ill., Sept. 12.

FRANÇAIS FRACTURE



Mr. Smith, visiting Paris, passed by a church where a wedding was taking place, and approaching a policeman, asked who was getting married. "Je ne sais pas," replied the flic. The next morning the visitor, passing by the same church, noticed that a funeral was in progress and stopped a woman to ask who had died. "Je ne sais pas," she responded. "Well!" exclaimed Mr. Smith, "he didn't last long, did he?"

— Marcy Powell in *Verbatim*



Supervisory Appointments

GORDON OSBOURN to supervisor of Electronic and Transport Phenomena in Solids Division 1132, effective Sept. 1.

Gordon joined the Labs in July 1979 as an MTS in a solid state devices research division. His work has been with theoretical studies of compound semiconductor materials and devices. Specifically, Gordon has done studies of transport through multi-layered semiconductor structures, pressure dependence of semiconductor effects, and modeling studies of radiation-hardened photodiodes. More recently, his work has been with theoretical studies of strained-layer superlattices.

Gordon received his BS and MS in physics from the University of Missouri at Kansas City and his PhD in solid state physics from Cal Tech. He is a member of the American Physical Society. He enjoys music — he plays several instruments — and

an occasional game of racquetball. He and his wife Pat and their two-year-old daughter live in the NE heights.

* * *

DON STONE to supervisor of Labor Relations Division 3811, effective Sept. 16.

Don joined the Labs in March 1963 as a staff member with the security organization. He later worked with methods and procedures, administrative systems, benefits, equal opportunity and affirmative action, and has been with Labor Relations Department 3810 since last January.

Don has a bachelor of arts degree with a major in business from Rutgers University, and has done graduate work in business at UNM. For the past 12 years, Don has been active in search and rescue work. He's a ham radio operator and also enjoys white water rafting, backpacking, and snow-shoeing. He lives in the NE heights.

* * *

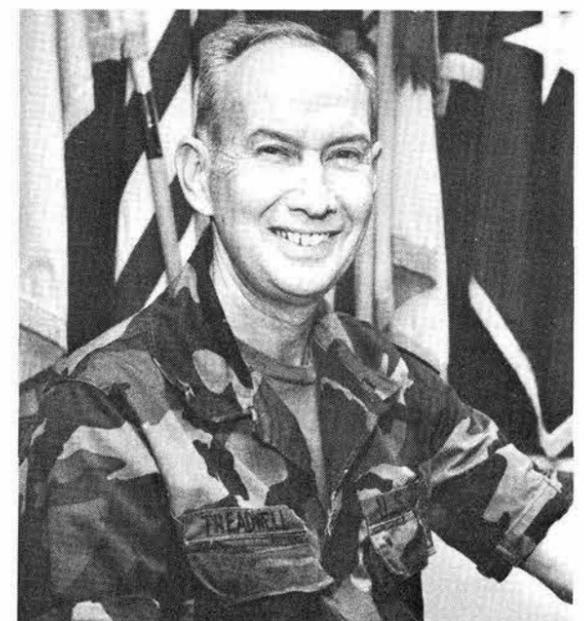
Sandian Named General In National Guard

George Treadwell (6221) was promoted recently to the rank of brigadier general in the New Mexico Army National Guard. He also became commander of the 111th Air Defense Artillery Brigade with units comprising more than 3000 troops.

George joined the National Guard in 1948 in Wisconsin where he attended Marquette University. He joined Sandia with a mechanical engineering degree in 1953 and transferred to the New Mexico National guard with the rank of second lieutenant. Promotions came regularly through the years as George performed various duties and attended service schools, including the Army War College.

He has served as platoon leader, battery commander, engineering officer, supply officer, intelligence officer, communications officer, commander of a maintenance battalion, and deputy commander of the 111th Brigade. He has participated in the headquarters group that conducts overseas exercises several times a year.

The 111th Air Defense Artillery Brigade has a long and distinguished history. Its origins go back to a cavalry unit organized during the Civil War. It later saw action during the Spanish-American War, served as an infantry unit in WWI, and, as the 200th



GEORGE TREADWELL (6221) is newly appointed to the rank of brigadier general and to commander, 111th Air Defense Artillery Brigade, New Mexico Army National Guard.

Coast Artillery during WWII, received three presidential unit citations for the defense of Manila, defense of Bataan, and defense of the Philippine Islands. It is the only brigade-size unit to receive three presidential unit citations.

Fun & Games

Triathlon — Modest but muscular Jim Harrison (5111) was overall winner of the Fountain Mountain Triathlon in Phoenix on Oct. 2 with an elapsed time of 10 hours 16 minutes, 17 minutes ahead of his nearest competition. The feat involved a 3.1-mile (5 km), swim, a 93-mile (150 km) bicycle race, and a 26.2-mile marathon run. "I was really surprised to win," Jim reports; "after all, I do work 40 hours a week so I can't train the way some of the participants do." Next goal: the three-day super-triathlon on Hawaii's Big Island in late December. Congratulations, Jim, and good luck!

* * *

Reading — SERP has subscribed to 20 popular recreational magazines, and employees can check any of them out for three working days by calling Recreation Manager Tom Lenz on 4-8486. Here's a list of the magazines:

<i>Bowling Digest</i>	<i>Women's Sports</i>
<i>Golf Digest</i>	<i>Shape</i>
<i>Runner</i>	<i>Health</i>
<i>Runners' World</i>	<i>Backpacker</i>
<i>Ski</i>	<i>Fishing World</i>
<i>Skiing</i>	<i>World Tennis</i>
<i>Cross Country Skier</i>	<i>Tennis</i>
<i>Field & Stream</i>	<i>US News & World Report</i>
<i>Outdoor Life</i>	<i>Sports Illustrated</i>
<i>Sport</i>	<i>Outside</i>

(The antepenultimate one is, of course, *intellectual* recreation.)

* * *

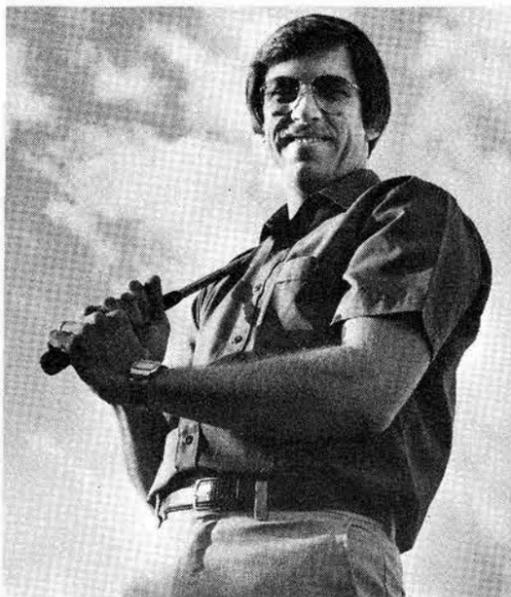
Hockey — Albuquerque's 30-30 Hockey Club is in its 10th season and is looking for experienced players for each of the four teams in the club. Two games are played every Sunday morning at Iceland Arena. Prospective members must be at least 30 years old. Club play modifies National Hockey League rules to minimize contact but maximize fun and exercise. Arrange tryouts at the rink on Sunday mornings. For info on fees and other details, call Rol Hewitt (7137) on 888-3199.

* * *

Youth Activities — KAFB's Youth Center wants to hear from kids interested in motocross, BMX racing, miniature golf (play free on your birthday), basketball, various instructional programs (dance, tennis, self-defense, piano, guitar), and competitive swimming. The Center is also seeking adult basketball coaches. More info from 4-9975.

* * *

Lumbarjacking — Eight out of ten Americans suffer back problems at one time or another. Equally shocking — most sickness absence is caused by back-related problems. Ergo, SERP is offering a Back Problems Prevention class starting Oct. 25 at the Coronado Club. The 7-8:30 class will span four consecutive Tuesdays and cover such topics as basic anatomy and mechanics of the spine, explanations of various back injuries, fitness, nutrition, and stress control. Preventing back problems these days emphasizes exercise — come dressed for some. (Persons with chronic or debilitating back problems must have a doctor's OK to participate in the class.) Cost is \$12; call Recreation Manager Tom Lenz at 4-8486 for signup.



BOB PARKS (7624) shot a hole-in-one at Arroyo del Oso's 167-yard, par 3 number 16 hole recently during the two-day SEGA Cup tournament. Although the shot helped, it wasn't enough for Bob to place in the meet. He has been golfing since 1970; his handicap is 17.

Skiing — Yes, it's time to take those old muscles, tendons, and various ligaments out of mothballs and get them into shape for the upcoming ski season. A Ski Conditioning class will be held at the Coronado Club starting Oct. 25. It's 7-8:30 each Tuesday and Thursday through Nov. 17. Klaus Weber, UNM cross country ski coach, will "weberize" all participants thoroughly so each one will enjoy a minimum potential for injury on the slopes this winter. Class is designed for both alpine (/) and nordic (—) skiers; cost is \$15. Call Tom on 4-8486 for signup.

Mountain Running Workshop Set Friday, Oct. 21

"Mountain Running — Fitness Over Forty" is the title of a workshop scheduled Friday, Oct. 21, starting at 5 p.m. at the Coronado Club. Noted speakers, slide and film presentations, and a buffet dinner are part of the event.

Speakers include Jack Douthett, mountaineer and master runner, and Klaus Weber, multi-athlete and UNM cross country ski coach. Dr. Norm Katz will discuss a psychological approach to long distance running and fitness, Dr. Kay Steffen, the physiology of aging. John Cappis, top mountain master runner, will share the joys and danger of mountain running. Jesse (The Roadrunner) Castaneda will talk about preparing for ultra-ultra events and motivation on the road.

"This event is for the runner searching to understand the untested limits of human performance," says Tom Lenz, Coronado Club recreation director. "It should answer questions and shed new light on the performance standards of the maturing individual in our society. It offers some of the scientific background and brings participants in contact with some of the athletes whose lives and life styles are organized around long-distance activities."

Participants may also view or take part in mountain runs on Saturday and Sunday, Oct. 22 and 23.

Fee for the workshop is \$7.50 (includes buffet) payable at the Coronado Club office.

'Music!'



Women don't sing barbershop quartet music.

So Karen Hill (1632/1633) contented herself with church choir, high school chorus, college choir, and traditional quartet singing. Then, eight years ago, she discovered she was wrong, that being male was not a prerequisite for barbershop singing; and she was delighted to become a member of the Enchanted Mesa Chapter of Sweet Adelines.

Along with jazz, barbershop music is a truly American musical form. Barbershop singing evolved many years ago when, with few forms of entertainment easily available, family and guests gathered in the parlor to sing, often with no instrumental accompaniment. Because the singers were usually untrained, the melodies had to be simple and the harmonies complementary and easy to improvise. The result was a vibrant four-part harmony sound.

This simple, informal style of entertainment has developed into a very strict musical form with only certain chords and chord progressions allowed. It also differs from the traditional soprano-alto-tenor-bass musical form in that the melody is not on the top of the chord, but in the middle. And, yes, women do sing the tenor, lead (melody line), baritone, and bass parts (albeit an octave or so higher than their male counterparts).

Karen sings a lead part; she's one of 50 members in the local group. Trish Graham provides the musical leadership for the chorus. She was a member of the High Country Chapter in Denver, the 1980 International Championship Chorus. The women practice once a week and perform for service organizations, conventions, churches, and nursing homes. Currently the chorus is rehearsing for its annual show to be presented next week.

Sweet Adelines has chapters in the U.S., Canada, England, Scotland, Germany, Sweden, and Japan, and is divided into 27 regions; the Albuquerque chapter is in a region including Southern California, Arizona, New Mexico, and El Paso. Each spring the choruses compete for the regional championship. The regional champs then compete for the title of International Champion. Next March, the regional championship will be held in Albuquerque.

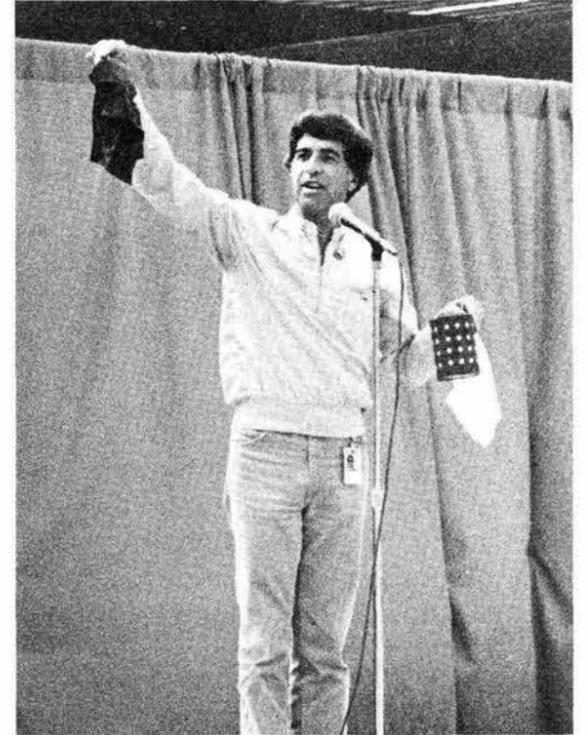
The annual show, "Music! Music! Music!" will include the full chorus, several quartets, and the El Paso Sun Gold Chapter as guest chorus. A matinee performance will be given at 2 p.m. and an evening show at 8:15 p.m. at the KiMo Theatre on Saturday, Oct. 22. Tickets are \$4 and can be purchased at the door; a portion of the proceeds will be donated to Hospice.

The chorus is now accepting auditions for membership and has placements available in all sections. Call Karen (822-8491) for more information or for tickets to the show.

ECP



TALENT TOWARD A PURPOSE — filling the Employee Contribution Plan coffers — delighted Sandians at the Employee Concert Party last week. Clockwise from top: President Dacey tells the crowd how he became “the ruler of the ECP,” a parody on a Gilbert & Sullivan ditty. Allison Davis (1813) showed why she has lead roles with ACLOA, and Don Marchi (2512) made memorable magic. Mary Rodriguez (3412) added a Near Eastern flavor to the festivities. Ken Miller (400) picked and plucked his way to ECP glory. Gene Ives (5130) sang “The Impossible Dream” — which is *not* the slogan of the ECP goal-setters. And “Roberta” Lassiter (5268) noted that Sandia has “a president who can carry a tune, and a staff that can put things on the moon.” Thanks from all of us to Ellen Cronin, John Gardner, Plant Engineering, Motion Picture-Video Services and all the others who helped. And a special thanks to all the entertainers — you were great!



Wellness — Sandia Style

By Susan Harris (3330)

Our story thus far: Wellness is an attitude — a positive approach to health. It is taking responsibility for our own health and maximizing our well-being, rather than relying exclusively on therapy to make us well once we're ill. Wellness seeks to promote life-style choices that enhance the quality of life.

Preventive medicine, health promotion, wellness programs — call it what you will — all seek to reduce the most common causes of premature death and illness. The big killers today are the so-called life-style diseases, such as heart disease and lung cancer, and motor vehicle accidents.

The causes of these killers and their underlying risk factors are known — smoking, high cholesterol, high blood pressure, sedentary life-style, obesity, a high-fat diet, alcohol and drug abuse, stress, careless driving, and failure to use seat belts. Every one of these risks involves a life-style choice, and most are controllable. That fact lies at the heart of disease prevention, health promotion, and ultimately, wellness.

How is Sandia Medical helping employees reduce these risks and achieve the goal of wellness? The primary program is the periodical physical examination. More than 98 percent of you volunteer for these. During the second half of each exam, you discuss Medical's findings about your health with a doctor or nurse practitioner. You learn about habits that are harmful to

your health, and you are encouraged to make the changes that would allow you to live longer — and better.

In addition, the Medical Department offers a number of programs encouraging life-style changes that have a high probability of improving your health: smoking cessation, blood pressure education and control, alcohol and drug abuse treatment, nutritional counseling, exercise counseling, and stress management classes. These programs can help you reduce the risk factors that contribute to illness or premature death.

If you're a do-it-yourself type, Medical has printed and audiovisual materials to tell you how to progress toward wellness. Pamphlets such as "Want to Be Healthier and Live Longer?" and a three-part film series on positive approaches to well-being are available. And the Tech Library has a number of books related to health available for check-out. The Library also has videotape of a colloquium, "How is Your Health and Wellness?" Curl up with a good videotape sometime and live longer as a result!

The final question you should ask yourself is: Will I live my life in a way that enhances my health, rather than a way that diminishes it? Sandia Medical wants to help you choose health and a high level of "wellness."

Coming next: The economic aspects of wellness — or lack thereof.

Events Calendar

Oct. 17-21 — Urban Open Spaces Exhibit from the Smithsonian, Main Library, 766-5045.

Oct. 19 — Audubon Wildlife Film: "Wild, Wonderful Alaska," 7:30 p.m., Popejoy.

Oct. 21-22 — NM Symphony Orchestra: guest artist, Manuel Barrueco, guitarist; conductor, Bernard Rubenstein; 8:15 p.m., Popejoy.

Oct. 22 — Sweet Adelines presents "One Hundred Voices Strong," 2 and 8 p.m., KiMo, 766-7816.

Oct. 22 — UNM's Dept. of Music presents the 3rd Annual Bach-A-Thon — a 12-hour continuous performance of organ, vocal, and instrumental works by J.S. Bach. Keller Hall, UNM, 12 noon to midnight, all seats \$1, 277-4402.

Oct. 24-Nov. 27 — UNICEF Photo Exhibit, Albuquerque Museum, 766-7878.

Oct. 25 — Best of Broadway & International Theater Series: Compagnie Philippe Genty (theatre d'animation), 8 p.m., Popejoy.

Oct. 28-Nov. 13 — "The Crucifier of Blood," a Sherlock Holmes mystery; Tues.-Fri., 8 p.m.; Sat., 6 & 9 p.m.; Sun., 2 p.m.; Albuquerque Little Theatre, 242-4315.

Congratulations

Nicky (5252) and David Whelan, a son, Ryan Chase, Aug. 26.

RETIRING



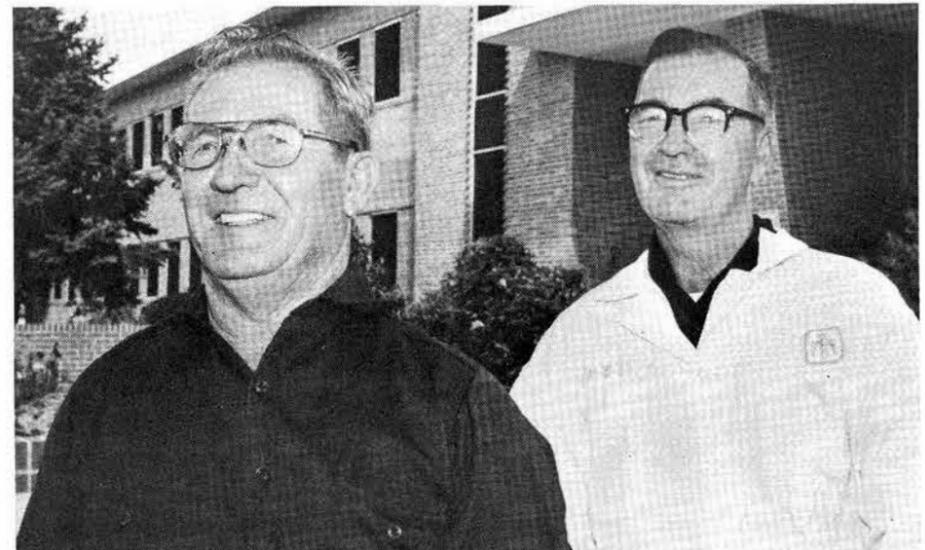
Bill Tucker (7264)



Bo Ellis (3435) and Louie Bryant (3435)



Eufemiano Garza (7482) and Jim Taylor (7473)



Bob Treharn (3423) and Warren Arthur (3618)

Take Note

A conference entitled "Energy, Environment, and the Economy in the Southwest" takes place at the Hilton on Oct. 27-29. Sponsored by Americans for Rational Energy Alternatives, the conference will address such issues as how energy and growth affect jobs, the environment, and business conditions in the Southwest; whether the US has abandoned its commitment to develop its coal, oil, gas, and shale resources; the future of nuclear energy; the risks of international military conflict resulting from the US energy situation; how "no-growth" philosophies affect the political process; and whether legislative and regulatory decisions affect the ability of utilities to meet future energy needs. Conference fee is \$125. For more information, write Ms. Pat Wainwright, AREA Executive Director, Box 11802, Albuquerque, 87192.

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A one-day Energy Information Exchange is set for Oct. 21 at the Sheraton Old Town. It's a working conference sponsored by the NM Energy Publications Council and funded by the NM Energy Research and Development Institute. The conference is designed to give energy information producers, disseminators, and users a chance to exchange ideas, report current activities, assess future info needs, and plan methods to transfer info to NM citizens. Nine presentations and five workshops are planned. The \$20 registration fee includes a luncheon. Visit LAB NEWS for program and registration form.

* * *

Allison Davis (1813) has a lead role in Civic Light Opera's production of *The Fantasticks*. Unlike the genre of musicals that dazzle with hundreds of cast members and tens of sets, the show is a bittersweet but heartwarming little gem. Popular too — it's played twice a night for 23 years in New York. The show runs tonight through Sunday at Albuquerque Little Theatre with Friday and Saturday tickets \$8.50 and Sunday tickets \$7.50 (\$1 discount for ACLOA and ALT season ticketholders). Curtain at 8, Sundays at 2.

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The winner of ECP's Employee Contest Picture is Glen Heston (7483) who identified all 160 Sandians in the collage. Anyone interested in seeing the list of names can drop by the LAB NEWS office.

* * *

Last issue a couple of names of people who played key roles in designing and executing Sandia's exhibit at the State Fair were omitted. So belated thanks to Mac McHarney and Janet Jenkins (both 3155) and to folks in Motion Picture-Video Services (3153) as well.

* * *

Dr. Games Goodwin, head gerontologist at UNM, will speak on "A Healthy Old Age and How to Achieve It" on Oct. 16 at 7 p.m. in the Education Building of St. Luke's Lutheran Church, 9100 Menaul NE. He's a humorous, informative lecturer who has spoken throughout the country and appeared on several national talk shows. No charge; the public is welcome.



HERMAN ROSER, DOE's assistant secretary for defense programs, tosses a spadeful of dirt to break ground for Sandia's \$39 million Simulation Technology Laboratory in Area IV. The facility is designed especially for testing nuclear weapon systems for vulnerability and survivability within intense radiation environments. Work at the STL will center on simulating the x-ray gamma radiation that would result from nuclear devices detonated as countermeasures. Other shovelers (from left): Col. David Scott, commander, 1606th Air Base Wing, KAFB; former US senator Harrison Schmitt; George Dacey, Sandia president; Rusty Shafer, the STL's principal architect; and Ray Romatowski, manager of DOE's Albuquerque Operations Office. The facility is scheduled for completion during the summer of 1985.

Parents and children are invited to the Albuquerque Public School's Career Enrichment Center open house on Wednesday, Nov. 9, from 5 to 8 p.m. There will be guided tours of the center's facilities and a planetarium show. Address is 807 Mountain Road NE.

* * *

Attention, female artists — "Daily Bread: Art from Female Experience 1983" is a statewide juried exhibition accepting all media in the visual arts and open to all women artists in New Mexico. The show will be held at the Public Library Nov. 26-Dec. 23. Entry deadline is Oct. 28. For a prospectus, write: Daily Bread, P.O. Box 40151, 87196, or contact the UNM Women's Center on 277-3716. For more information, call Tiska Blankenship on 256-3785 evenings.

* * *

Many Sandians have been involved with Boy Scout Troop 444 over the years. All of the alumni and parents, past and current, are invited to the 25th anniversary celebration on Oct. 29 from 4:30 to 6:30 at St. Stephen's Methodist Church, 4601 Juan Tabo NE. More info from Dave (5138) or Anne Nokes on 884-5279.

* * *

Got an Indian pot, kachina doll, jewelry, basket, or rug that needs a pedigree? Get it/them identified by the experts at the next Indian Arts Identification Day from 10 to 1 on Oct. 22 at the Indian Pueblo Cultural Center (on 12th just north of I-40). Each item you bring will cost you a \$5 "donation." If you bring three or more, you'll get a 1984 calendar illustrated by Bob Montoya of San-

dia/San Juan Pueblos. More info from Beverly Johnston on 294-2184.

* * *

A free 8-hour CPR course is being offered to all employees and family members (over age 14). The class will be in two sessions: from 8 a.m. to 12 noon or from 12:30 to 4:30 on two consecutive Saturdays — Oct. 22 and 29. Classes will be in Bldg. 822, outside the Tech Area. For registration and more info, call Marion or Judy Wilde at 293-2652.

* * *

Parentcraft has announced a full house of "one-shot" workshops for parents. The workshops are held at the "Parenting Center," 114 Carlisle SE. One series runs on Mondays from 7 to 9 p.m. and another series on Tuesdays from 9:15 to 11:45 a.m. Child-care is available, doubtless in the "Childing Center," for all 25 workshops through Dec. 6. For a list of courses offered, visit LAB NEWS. For further info, call Melinda Walsh at 256-1191.

* * *

The NM Folk Music Society is sponsoring Robin and Linda Williams, singers of American contemporary folk, traditional old-time, and Appalachian music; tickets are \$5. The concert is at the Methodist Church at 4th and Lead and begins at 8 p.m. on Oct. 28. Purchase tickets at the BookStop in the Nob Hill Center or from David Strip (6415).

* * *

Marriage Enrichment Encounter, a non-profit ecumenical group, helps couples improve communication techniques through weekend experiences. The next weekend is Nov. 18-20. More info from 296-2370 or 266-3208.

MILEPOSTS

LAB NEWS

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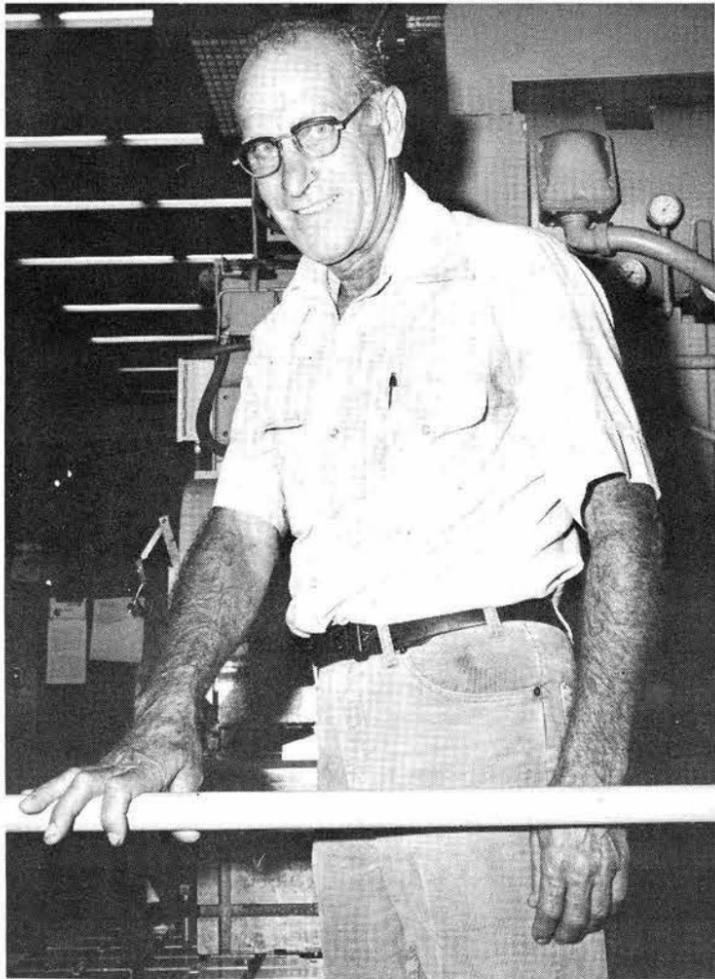


Nancy Nelson (7654) 25



Tony Chavez (3417)

35

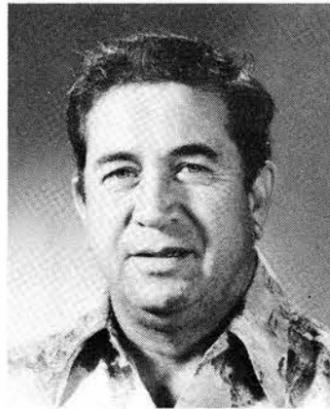


Troy Bewley (7483)

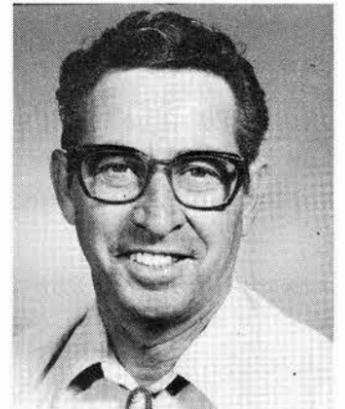
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John Williams (5313) 25



Jose Jaramillo (7473) 10



Arsenio Montoya (2515) 35



Allan Sattler (6253) 20



Elefio Montoya (7657) 15

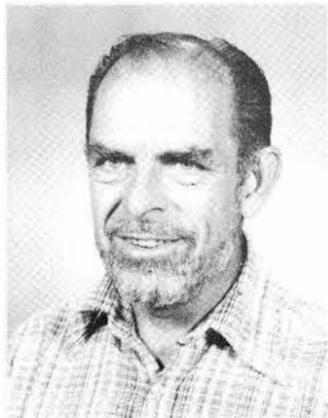


Craig Summers (3743) 35



T.A. Allen (7473)

35



Richard Bohannon (7533) 35

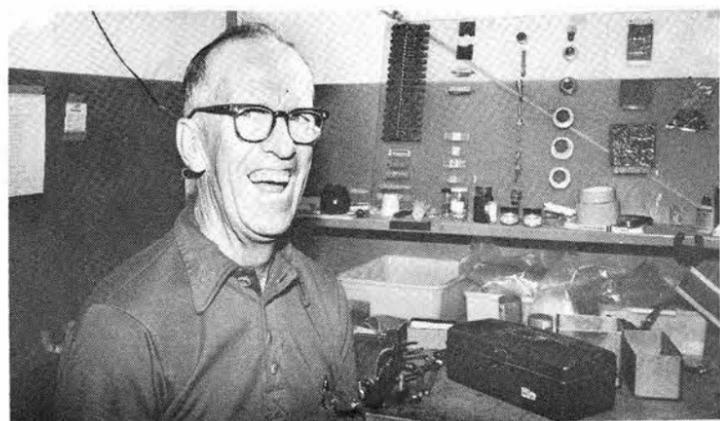


Marge Weitzel (7100) 25



Bob Yoder (4020)

35

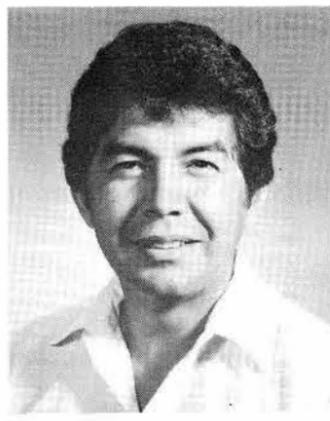


Jim Jackson (3418)

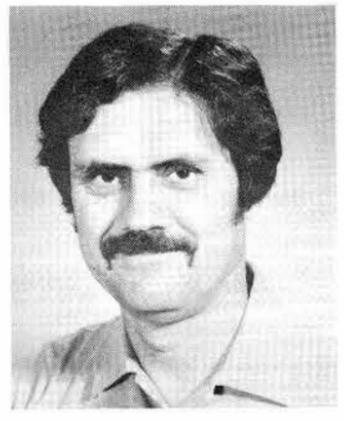
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Eliseo Martinez (3613) 10



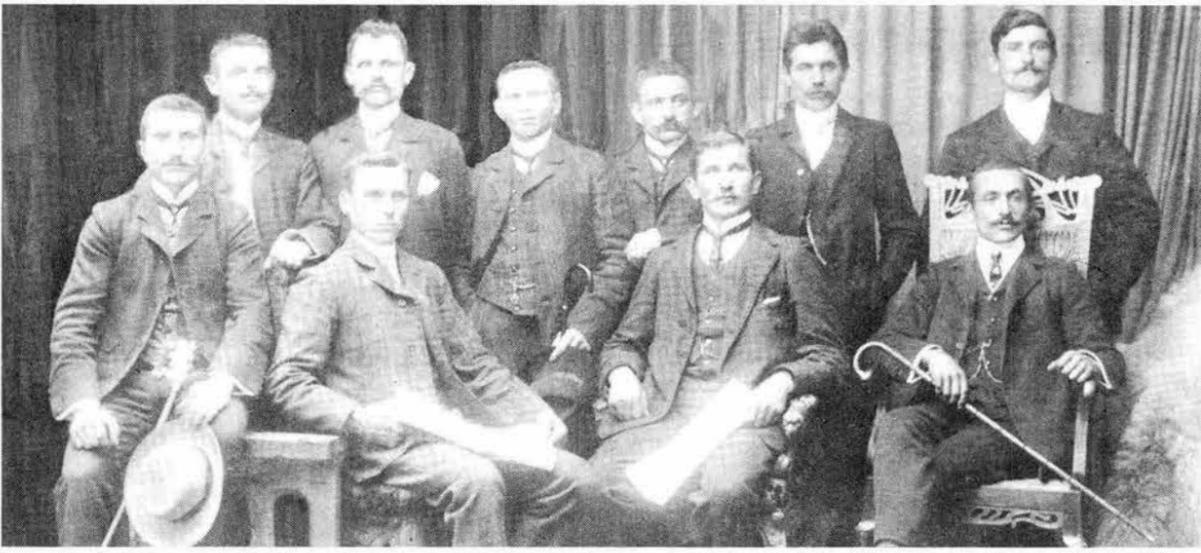
Edward Garcia (5313) 15



Norman Wing (1111) 15

Favorite Old Photo

This photograph of a group of rather dashing young men was taken about 1903 in Dusseldorf, Germany. That's my father, Oreste Sr., at the far left. They were 10 Italian marble masons who had left northern Italy to find work in Germany. After three years of saving his money, Dad went back to Italy to marry my mother Edina. Later they emigrated to the United States and to Utah where I was born. They operated an Italian market for many years. I'll be tracing the family tree when I visit Italy next year. — Oreste (Rusty) Ganzerla (3155)



UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

CLASSIFIED ADVERTISING

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

CONN trombone, \$100. Dalton, 873-2644.
 ELEC. range for built-in area, copper-tone, \$95. Powell, 877-4939.
 LUDWIG snare drum; Arley clarinet; English riding boots; Bell motorcycle helmet; kerosene heater. Hanson, 298-2120.
 SCANNING monitor receiver, programmable memory, 5-band FM-VHF & UHF w/antenna; 23-channel base/mobile transceiver, 5-watt outside antenna; misc. Groff, 268-5291.
 BICYCLE, ladies, 3-spd., \$75 OBO; Olympia standard typewriter, manual, \$35 OBO. Eifert, 299-3847.
 DISHES; blankets; table w/4 chairs; car seat; couch; sleeper; ironing board; old Maytag washer. Maestas, 831-4072 after 5:30.
 GUITAR, 1979 Gibson Les Paul custom, cherry sunburst, \$800; Fender twin amp, 100 watts; bra for Datsun 280 ZX. Mahnesmith, 294-0078.
 COCKTAIL TABLE, round, 42" diameter, wrought iron base, top is marble pieces, \$80; tan recliner, \$25. Cosden, 881-1412.
 TWO WINDOWS: picture 5x7', aluminum frames w/2 larger panes over 2 smaller (one moveable), \$25 ea. Knutson, 299-6183.
 FREEZER, 16 cu. ft. upright, \$250. Beatty, 299-3429.
 TYPEWRITERS: manual Royal & Sears, \$20 ea.; cemetery lot, 4 spaces, \$400 ea. Ellingson, 299-4056.
 COACHMAN Cadet travel trailer, 17', 1973 model, self-contained, \$3500, negotiable. Miller, 873-3450.
 WURLITZER organ w/orbit synthesizer, orig. price \$5K, sell for \$2K. McDaniel, 299-6189.
 TSR-80 color computer w/disk drive & color printer, less than 1 yr. old, orig. price \$1200, sell for \$850 OBO. Jennings, 294-5287.
 DANA flameless gasoline heater, \$10; Litton "Heat-N-Eat" commercial

oven, \$30; Westinghouse elec. roaster oven, timer & cabinet, \$75. Butler, 299-1316.
 FOOTBALL TRIP: Texas Tech/Arkansas game in Lubbock, tickets, hotel rooms & charter bus. Browning, call 268-8260 before Oct. 20.
 SKIS, 160cm Equipe for teen or light adult, Look-25 bindings, Barrcrafter poles, 1 yr. old, \$65. Holmes, 292-0898.
 FURNITURE: ex. desk, solid walnut; metal dining set; maroon recliner; green velvet platform rocker; fire proof floor safe; end table, walnut. Hobbs, 296-7113.
 ROTARY lawn mower, 20" Sears Craftsman, gas, 3.5 HP, \$65; Singer port. sewing machine w/attachments & carrying case, \$45. Keepports, 881-8066.
 UTILITY TRAILER, 4'x8'x2' sides, 4" steel channel frame, steel fenders, 15" tires, wiring & lights, \$385; hydraulic log splitter, 8HP gas motor, 24" stroke, mounted on wheels, 5-gal. oil tank, \$400. Wright, 296-3850.
 CAMERA, Pentax Spotmatic "F", 4 lenses & 2 & 3X multipliers; bass boat, Bass Tracker III, 40 hp Mercury & Minkota trolling motor, extras, w/trailer. Dugan, 296-4440.
 MAPLE bunk beds, complete w/foam mattresses. Jones, 299-9032.
 BABY dressing table, \$20; Peterson baby carrier, \$10; Brownie uniform: slacks, blouse, belt & tie, size 10-12, \$10. Graham, 293-7302.
 TWO Meerscham pipes, new, never smoked, handcarved from Turkey, \$50 ea. or \$90 both, 30% below retail. Klarer, 344-0612.
 GUITAR, 12-string acoustic w/case & strap, \$135 OBO. Mills, 296-0340.
 CHINA, Noritake "Burlington," complete 96-piece set, never unpacked, service for 12 plus serving dishes, \$500. Richards, 293-0994, 298-8554.
 TWO brown leather Danish modern chairs, \$95 ea.; Fairchild video game w/several cartridges, \$15. Seager, 299-4137.
 RANCH MINK coat, size 10, sell for less than half of \$450 appraisal, worn once; 3 cocktail dresses, size 8-10, \$35 ea. Kraft, 881-3435 after 6:30.
 NEW cycle helmet, never worn, size 6-7/8, \$20. Coughenour, 293-3288.
 TRS80/1 Level 2, 48K, disk drive, dot matrix printer. Mason, 299-2836.
 COFFEE TABLE & matching end tables, dark wood, smoked glass tops, \$95; ping-pong table, folding, you pick up, \$30. Rouckus, 266-8577.
 WATERBED, complete, pedestal drawers, \$100; Atala 10-spd., men's, Chinelli/Campagnola equipped, \$300; Kenmore sweeper & sewing machine, \$75 ea. Anderson, 242-2513.
 REMINGTON 30-06 pump rifle w/4X Weaver scope & ammo, \$175. Palmer, 296-2551.
 MOVING BOXES, sturdy, all sizes, make offer. Taylor, 864-3338.
 10-SPD. bicycle; weight set; suits & pants. Kureczko, 831-4655 after 7.
 NORDICA ski boots, Junior size 4, almost new, \$40; Rossignol 140 skis & Tyrolia Junior bindings, \$45. Scarla, 292-7225.

VW bug tires, 15", \$20 for all four. Graham, 296-8163.
 NU-WA travel trailer, 1978, self-contained, 20', sleeps 6, stereo, carpet, \$3500. Fraser, 892-8435.
 LIGHT FIXTURE for game/pool table, (36"x18"), antique brass finish, 3 globes. Kipp, 821-6563.
 TWO twin mattress & boxspring sets, used 2 months, 1/2 orig. cost. Aiuto, 293-3903.
 POLICE emergency 10 channel programmable scanner (Sears), \$50. Weber, 293-7522.
 BEDROOM SUITE, 40 yrs. old, all wood, \$100; K-2 Hawk 180cm, Nordica boots, 7 1/2, bindings, poles, \$100; twin bookcase headboard, \$10; '76 Suzuki 75 trail/street bike, \$50. Goodwin, 294-6702.
 POOL TABLE, 4x8 regulation w/ball return, \$100; queen sleeper sofa, \$125; single rollaway bed, \$20; free to good home: 1 yr. old mixed cocker spaniel, spayed female w/shots. Atkins, 298-5762.
 QUEEN sheets, Wamsutta Supercal-plus, fitted & flat, std. cases, pkgs. unopened, \$60 retail, \$45 OBO. Mooney, 299-1774.
 SOFA, Thomasville, traditional style, neutral stripe, mostly rust color, \$125; 2 matching rust chairs, \$50 for both; Norelco salon-style hair dryer, \$20. Caskey, 296-6372.
 PING PONG table w/accessories; motorcycle helmet; 36"x36" wrought iron railings; Eico signal generator, condenser checker. Hannum, 296-2095.
 SNOW TIRES, radial Hydrophilic 175/70-13, mounted/balanced on VW Rabbit steel wheels, new, 2 for \$100. Lipkin, 881-6038.
 FLUORESCENT light fixture, 8' 4-tube w/tubes, \$25; casement windows w/glass, make offer. McIlroy, 299-4977.
 '75 HONDA Civic engine, \$200; twin headboard, \$15; hideaway bed, \$50; size 10 bridal slip, \$20. Zirzow, 298-1479.
 MATTRESS, king size, \$20. Jones, 255-7924.
 6" TIMBERLAND insulated waterproof boots, all leather construction, lug sole, 11 1/2, \$70 new, still in box, \$55. Brooks, 883-1485.
 ATARI & 6 cassettes, \$80; cedar armoire, \$80; small dresser, mirror, stool, \$35. Selleck, 294-4347.
 SPRINKLER timer, 3-station, \$20; shop vacuum, \$20; solid-ox welder, \$15; Delco AM car radio, \$15; 1/2" drill motor, \$20. Falacy, 293-2517.
 FIREPLACE grate, tube type with blower, \$75. Tufts, 255-9663.

TRANSPORTATION

MOPED, Batvus, 100 mpg, lights, speedometer, helmet, \$275. Shuster, 268-8491.
 '74 TOYOTA Celica GT, 5-spd., AC, new tires, AM-FM, \$1995 OBO. Schlimme, 293-0304.
 '75 HONDA 750 Super Sport, 4-cyl., 3600 miles. Ortega, 296-7090.
 '77 VW Rabbit, 2-dr., AT, AM, low mileage, custom trim, \$1995. Stevens, 299-6086.
 '82 OLDSMOBILE 98 Regency, 4-dr. diesel, 17K miles, 32 mpg. Apple, 292-2049.

'64 CHEVY Corvair Monza, 2-dr. Ricker, 296-2191.
 '76 BMW R90/6 (900 cc), Krauser bags, windjammer fairing & lowers, touring seat, cruise control, new rear tire, shop manual, \$2000 OBO. Morris, 292-5112.
 '79 GMC pickup, low mileage, extras, \$2500. Yip, 294-8124 after 5.
 '77 DATSUN pickup, longbed, camper shell, new tires, 52K miles, \$2500. Sandoval, 242-8597.
 '73 SCOUT II, 4-wd, 345 V8, AT, PS, PB, 2 tanks, AM/FM stereo, custom bumper, extras, \$2750. Potter, 892-8812, 831-0155.
 1960 BUICK LeSabre sedan, all power, partial restoration, mechanically excellent, needs paint & minor body work, \$450. Butler, 299-1316.
 SCHWINN Stingray, 20", 3-spd., \$50. Atkins, 298-5762.
 '75 FORD F150 Supercab, AT, AC, PS, PB, camper shell, queen size bed, CB & tape. Anderson, 293-2490.
 '65 MUSTANG, 3-spd., 200 CI, \$1750. Keepports, 881-8066.
 '80 SUBARU GLC 1600, 5-spd., AC, AM-FM, 32K miles, \$4300; glass fp doors, \$35; old horse trailer, \$400; flatbed trailer, \$950. Lackey, 898-6638.
 '78 DODGE Diplomat, AT, AC, AM-FM, power windows & seats, vinyl roof, 65,600 miles, \$3450. Miranda, 255-3342.
 '76 DATSUN B-210, 2-dr. hatchback, low mileage, \$2300. Rodriguez, 296-3277 after 3.
 '81 MAZDA Sundowner pickup, 5-spd., AC, custom wheels, camper shell, AM-FM cass., one owner, 35K miles, \$4800. Chirigos, 884-5686.
 '80 CHEV Citation, PW, PB, PS, PDL, AC, 4-spd., 4-cyl., \$3450; '78 Pontiac Grand Prix, 2-dr. HT, PS, AC, PB, AM-FM-cass., low miles, \$4700. Laymon, 293-3642.
 '73 MAZDA RX-3, 60K miles, \$1000 OBO. DeVargas, 293-7671.
 '81 TRANS-AM, turbo, 4 disc brakes, Positive-Traction, warranty, low mileage, black, red interior, consider older 4x4 in trade. Arana, 299-1214.
 MOPED 50cc Batavus, 1979, \$195; Graham, 296-8163.
 '69 DATSUN pickup. Davis, 884-3353; after 5:30 & weekends, 281-2183.
 '71 F-100, 390V8, 4-spd., PS, AC, LWB, trailer pkg., insulated shell, boat rack, 77K miles, \$2950. Luikens, 881-1382.
 '83 HONDA 650 Nighthawk, 1800 miles, Windstar fairing, \$2750 OBO. Eley, 296-3185.
 '78 LANDCRUISER, new oversize tires & wheels, HT and umbrella top for summer, AM/FM-cass., \$6200, negotiable. Klarer, 344-0612.
 YAMAHA XT250G motorcycle, 4-stroke Enduro, 1850 miles, \$900. Braithwaite, 822-1998.
 '80 SUZUKI GS550E, plexi-fairing, Bates rack & box, adult ridden, garaged, \$1100. Bryant, 299-1292.
 MOTORCYCLES: '72 Honda CB350; '78 Honda 550-four. Aiuto, 293-3903.
 '73 FORD wagon, AT, PB, PS, AC, reg. gas, Michelin tires, 65K miles, orig. owner, \$1500. Doyle, 884-5238.
 '69 OPEL stn. wgn., orig. owner, 51K miles, AT. Northrup, 884-4718.

'77 OLDS 98 Regency, 350 V8, white/green velour, all the extras, below wholesale book, \$2250. Errett, 292-4885.
 BERTIN 27" touring bike frameset, med. blue, one set Super Champion 700c wheels, \$100 or will sell separate. Brooks, 883-1485.
 '79 FORD Fiesta, 2-dr. hatchback, \$2300 OBO, orange. Key, 292-5770.

REAL ESTATE

15 ACRES 12 miles south on NM 14, woods & meadow, electricity, proven water, \$65K, 9.5% REC. Meikle, 299-4640.
 4-BDR. house in 4 Hills, SW styling, extra storage, refinance or owner finance. Erickson, 296-0126.
 2-BDR. CONDO, low interest, all appliances, fireplace, club house, security. Garcia, 299-8778.
 TWO ACRES, 7 miles east of Tramway, \$250K house on adjoining lot, elec., proven water, \$39,500, assume 8 3/4% loan. Ray, 298-0408.
 LOT in North Valley, Dietz Loop, off Rio Grande Blvd., 0.6 acres, 14 mi. from Labs, \$32K. Smith, 242-9576.
 CUSTOM 3-bdr., 2027 sq. ft., southwest landscaping, wood paneled den, lg. kitchen, covered patio, FHA financing, \$86K. Weimer, 294-3523.
 WOODED lot w/lake view, 2-5/8 acres, on Heron lake (near Chama, NM); no-wake, fishing & sailboats only. Andersen, 294-8624.
 3-BDR. house, NE, \$94,500, \$12K down, payments \$950. Harrison, 296-3996.

WANTED

DOG HOUSE and/or bed for miniature poodle. Chirigos, 884-5686.
 USED set of encyclopedia, the newer the better. Negin, 266-1983 after 6.
 TRACTOR TIRES w/deep-V tread, 2 ea., 16x6.50-8NHS & 2 ea. 23x10.50-12NHS, all 2-ply rating; buy or swap for my turf treads. Hughes, 299-6674.
 FEMALE non-smoker for furnished bedroom w/private bath in NE home, kitchen privileges. Douglas, 821-8551.
 FOLDING TABLES and/or card tables. Graham, 293-7302.
 WILL buy or borrow official NFL Encyclopedia of Pro Football (Ed. B. Barron - 1982). Gander, 255-2195.
 DUNE BUGGY, VW type, prefer incomplete unit. Brock, 865-4055.
 BORROW, use or rent cider mill & press. Borgman, 299-6010.

WORK WANTED

STUDENT wants part time job as apprentice in photography or jewelry-related fields; have experience & equipment. Rodriguez, 296-3277.

LOST & FOUND

LOST — Boy figure gold charm w/green set. Arnold, 6-0917.
 FOUND — Ballpoint pen w/KBOA emblem on clip. Onell, 4-7174.

October Bash Set on 22nd

TONIGHT at Happy Hour, the Sandia Jazz Corporation (formerly Arlen Asher Trio) is on the bandstand while stuffed jumbo shrimp is the dining room special at \$6.95. In addition, the Club's regular menu with appetizers, salads, steaks, seafood, and chicken is available. Happy Hour prices are in effect from 4:30 until 8:30 when the music starts.

THE BIG ONE this month is the October Bash set for the 22nd with Southside, a big seven-piece variety band, booked for the occasion. Chef Hank Perez offers red snapper Vera Cruz as the dinner special, a fantastic buy at \$8.25 for two. Cocktail hour starts about 5:30, dinner is served from 6 to 8:30, and the music plays from 8:30 until 12:30. Call 265-6791 for reservations.

FRIDAY, Oct. 21, the W.D.C. Band is on the bandstand while the dining room special is a 9-oz. New York steak for \$6.95. From 7:30 until 8:30, Karen Edwards instructs free western dance lessons.

A TWO-FOR-ONE Tuesday dining special is scheduled Oct. 25 with a steamship round of beef buffet featured at \$9.95 for two. Call for reservations and stop by about 6 p.m. for a relaxed evening in a candlelit atmosphere.

CORONADO SKI CLUB holds its regular monthly meeting (third Tuesday each month of ski season) on Oct. 18 in the Club's ballroom at 7 p.m. Presentations by the Sandia Peak Ski Area on the latest construction activities and development plans are scheduled along with the Ski Club's usual door prizes. The Sandia Ski Patrol will also discuss its role.

A Ski Equipment Clinic is set for 7 p.m. on Wednesday, Oct. 26, in the El Dorado Room. Open to everyone, the clinic should provide information useful at the Ski Patrol's Ski Swap coming up Oct. 29.

NOW IS THE TIME for Sandia organizations planning Christmas parties to contact the Club office. Most dates are still open, and the Club offers a variety of party packages. First come, first served.

TRAVEL — The Club announces two new trips as travel suggestions during the Christmas break. Try a quick trip to Las Vegas by bus Dec. 26-29 and stay at the Las Vegas Club downtown. Cost is a bargain \$99. Or make it to San Diego Dec. 26-30 by air for \$310 double occupancy. The package includes air fare, transfers, lodging, and admission to Sea World, the San Diego Zoo, Disneyland, and a ride on the San Diego Duck (not a successor to the San Diego chicken, but a WWII-vintage amphibious landing craft). Deposit \$200 right away at the Club office to ensure current air fare prices.



THE SOUDERS, Penny and Paul (5134) remind skiers and would-be skiers that the Sandia Peak Ski Patrol's annual Ski Swap takes place the last weekend of October — 28, 29, and 30. "Bring equipment to sell on Friday," says Paul. "Sale days are Saturday and Sunday." Both daughter Penny and father Paul are Patrol members. Penny is a senior at UNM.

feed back

Q. This morning a sign appeared above the copy machine in the south wing of Bldg. 800. It reads: "Priority use by Divisions 154 and 155." I thought that the copiers located throughout the Labs were for the use of any Sandia employee for official business purposes, without regard to organization number. I also thought that copiers were not to be tied up for more than five minutes at a time, and that if large quantities of copies are needed, the job can be done more efficiently and cheaply by the Rapid Service people.

A. You are correct in your assumption that all copiers are for use by Sandia employees. Occasionally, however, a particular machine can be "captured" by an organization for short periods to expedite a priority task; as soon as the urgent copying is done, the machine should again be opened to general use.

Also, quantities of 25 copies or more should be acquired from Rapid Services. Sometimes the rule is violated and we have to rely on peer pressures or the cooperation of employees to adhere to the rule. Unfortunately, this does not always work.

We would hope that organizations that capture a particular copier for a priority job would kindly allow short interruptions in their job to accommodate a quick copying requirement of another user.

H.H. Willis — 3100

Q. I park in the lot in front of Bldg. 802. Getting out of that lot is impossible after work because traffic on H Street blocks the exits. If there is a break, we still can't get out because the pedestrians are everywhere. I need to enter the left hand lane that goes west on H Street or turns left on Wyoming. But drivers and pedestrians won't let us cross the right hand lane to reach the left hand lane. Would it be possible to direct the pedestrians to the south side of H Street? (Pedestrians also cause traffic to back up on H Street because traffic cannot make right turns onto Wyoming without running over pedestrians.)

A. Over the years the entrances and exits to the parking lot in front of Bldg. 800 have been changed many times in an effort to make the traffic flow better. While there are still some problems, I believe that it currently is the best that we can do. We tried to get the pedestrians to walk on the south side of H Street, but most of them insisted on walking on the north side so we provided a sidewalk.

Since you want to go west on H Street, you may want to consider joining those pedestrians and park west of Wyoming.

R.W. Hunnicutt — 3600