

ECP HOEDOWN PREVIEWS — Gene Ives (7500) will sing the lead role in Puccini's comic opera *Gianni Schicchi* the evening of Oct. 2, but if you're not an opera buff, don't let that deter you. Gene's going to belt out some country-western at the Hoedown Oct. 3. The saxophone player is Linda Garcia (155), one of the nine Sandians who volunteered to make up the Hoedown band (each Sandian plays with other groups). She and her sax will be featured in a solo number. Ellen Cronin (6330), chairman of the Kick-Off Campaign Committee, reminds everyone that free salsa and chips will be available after the Salsa Contest winners are announced. See additional ECP story on Page Two.

ECP Campaign Kick-Off

Country Western Hoedown On Library Mall, Oct. 3

The State Fair may be over, but don't pack away those western duds yet! Wear them one more time when you join the party on the Library Mall on Oct. 3. It's a Country Western Hoedown to begin this year's ECP drive. An all-star cast of Sandians will provide the entertainment.

Magical Don Marchi (2512) will emcee the event, ably assisted during one segment by VPs Orval Jones and Everet Beckner. Cloggers, square dancers, vocalists, fiddlers, and a western band will entertain you. Barbecue beef, baked beans, and lemonade (catered by the C-Club, \$1.75 / per-

son) will sustain you.

It's gonna be a real hoedown; don't miss it, 11:30-12:30, Oct. 3, at the Mall. (A one-hour lunch period has been approved so that employees can attend the Hoedown.)


LAB NEWS

VOL. 36 NO. 20 SANDIA NATIONAL LABORATORIES SEPTEMBER 28, 1984

Toward a Considerable Technical Achievement

Team Developing X-Ray Laser

Researchers at several laboratories have attempted to develop an x-ray laser using high-powered lasers or pulsed-power accelerators as an energy source. So far, no one has observed a lasing effect in such a device, but a Sandia team is making some significant advances.

"It's extremely difficult to make an x-ray laser," says Keith Matzen, supervisor of Sandia's new X-Ray Laser Physics Division 1273. "You have to have a large energy-density source of photons to energize the laser, and the timing between the pump source and the laser medium has to be very precise. So the achievement of lasing at x-ray wavelengths would be a considerable technical accomplishment."

Visible light has wavelengths of 400 to 700 nm (nanometers). X-ray wavelengths are shorter than 80 nm. As the wavelength of laser radiation desired becomes shorter, the energy-input requirements typically go

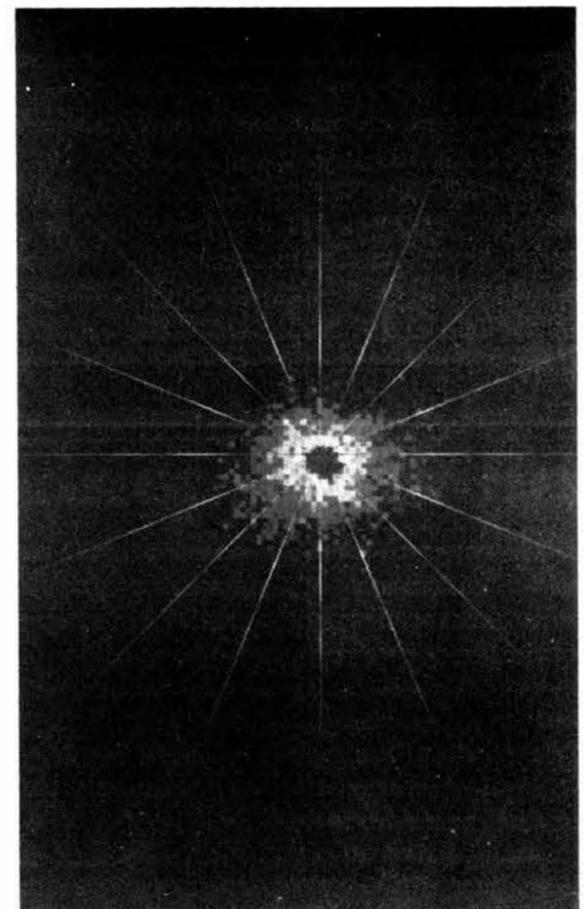
up enormously. "There are other physics problems too," Keith points out. "But our research effort so far is progressing well."

A team of Sandia researchers is using the Proto II accelerator (originally designed as a prototype for PBFA-I and PBFA-II) in Area V as a source of powerful electrical pulses in experiments aimed at the development of an x-ray laser pump — a source that might then drive an x-ray laser.

The first phase of the program involves experiments with gas-puff implosions. The goal here is to develop an intense radiation source — nonlasing x-rays that can be used in the second phase a few months from now to pump a lasing medium to produce an x-ray laser.

To produce a gas-puff implosion, a cylindrical annulus — like a pipe section — of noble gas (neon, argon, krypton, or xenon) is injected at high velocity into the center of

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X-RAY RADIATION produced in an argon gas-puff implosion looks like this in cross section. The photo is computer-enhanced to show radial lines representing 16 converging transmission lines from the Proto-II accelerator. Such implosions convert the gas into a plasma at several million degrees C and radiate the x-rays shown here. The goal of X-Ray Laser Physics Division 1273 is to use the x-rays from these gas-puff implosions to pump atoms in a linear lasing medium to levels sufficient to cause it to lase at x-ray wavelengths.

More Than Ever to Give

For the first time the annual Livermore Employees Assistance Plan (LEAP) campaign will shoot for a goal in excess of \$100,000. Committee chairman Bill Ormond (8261) said the employee committee is aiming for \$105,000 in pledges from Sandians, a seven percent increase over last year's \$98,000 figure.

Using the timely theme "Olympic Gold — Sharing Through LEAP '84," the committee devised some new twists for the fund-raising effort to involve more employees in related events. A two-and-a-half kilometer run and an agencies informational fair will kick off the drive on Wednesday, Oct. 3. The committee expects 25 human service organizations plus the United Way and the Combined Health Agencies coalition to set up tables on the Combustion Research Facility patio, with a band and free refreshments as an added attraction during lunchtime.

Another new feature will be a light-hearted series of olympic-like events Wednesday through Friday around noontime, including directors, department managers, division supervisors, and secretaries as competitors.

Two members of this year's LEAP committee, Jill Green (8272) and Rob Allen (8312), have a special interest in the success of the campaign — both have children with cerebral palsy.

At the age of 8½ months, Jill's daughter Shawn was diagnosed as having severe motor impairment due to brain damage, later identified as cerebral palsy. At 18 months she received help at the Agency for Infant Development in Fremont (a recipient of LEAP funds this year) and stayed in that program for a year and a half.

"She couldn't even roll over by herself at first," says Jill. "But she made tremendous progress while she was there. She responded quickly to the Agency's method of therapy, even faster than her doctors at Kaiser Hospital expected." She is now 4 years old and part of the preschool program at Livermore's Portola Avenue School known as SELPA (Special Education Local Planning Area.).

Rob's 5-year-old son Matthew was discovered to have cerebral palsy when he was six months old and was enrolled in the Hope Education Center (a LEAP agency) soon after that. Rob says his son was immobile when he began therapy there, "but in only two weeks their patterning and exercise program had him 'commando' crawling."

Since Matthew was also born with serious vision problems, the Allens moved him into a private program run by a specialist in vision care as well as physical therapy. Now he has normal eyesight and gets around in a wheelchair well enough to attend the Montessori School kindergarten in Livermore. Rob and his wife have also participated in the United Cerebral Palsy parent-support group, another United Way agency.

Six new groups have been added to the agencies receiving funds through LEAP



VISITING HOPE EDUCATION Center in Livermore, the LEAP Committee met some of its clients and watched the therapy process. LEAP chairman Bill Ormond (8261) holds one of the children as members (from left) Artie Ortega (8152), Jill Green (8272), and Fred Johnson (8184) observe.



SANDIA LIVERMORE NEWS

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this coming year: the American Indian Center in Livermore, the Family Crisis Center, MATCH (Ministry to the Aging Through Community Help), the Agency for Infant Development based in Fremont, the newly-organized Tri-Valley Community Fund, and Combined Health Agencies (representing a coalition of 16 national health-related groups).

The 13 repeat recipients in addition to the United Way of the Bay Area are Buenas Vidas Youth Ranch, The Center (formerly Hotline), Emergency Fund Center, Hope Education Center, Hope Hospice, Horizons Youth and Family Services, Kaleidoscope Center for developmentally disabled children, LAGATS (Livermore Area Gifted and Talented Students), Livermore Playschool, M-2 Prisoner reentry program, Nurses Welfare Fund, Nursery School Scholarship Fund, and Twin Valley Learning Center.

Committee members in addition to those already mentioned include Don Adolphson (8441), deputy chairman Mike Birnbaum (8243), Fred Johnson (8184), Artie Ortega (8152), Cindy English (8201), and Mary Mandia of Wells Fargo Guard Services.

Sympathy

To Mary O'Shea (8024) on the death of her mother in Livermore, Aug. 18.

Take Note

Two Sandia Livermore photographers have recently been recognized for their work. Cary Chin (8186) received an honorable mention in the annual Industrial Photography magazine photo competition. His color photo of "Laser diagnostics in burning coal particle slurry" was from an experimental setup in the Combustion Research Facility. The winning entry was published in the magazine's June 1984 issue. Also having a winning photo published recently is Bud Pelletier (also 8186), whose work was recognized in the open color competition of Photographer's Forum "Best of '84 Photography."

So That's Why!



... "It is now clear that both smoking and nicotine can stimulate the central nervous system. They produce, for example, the irregular, desynchronized electrical activity in the brain which is characteristic of an alert state. There is also good evidence that this increased arousal can lead to better performance in boring tasks which require subjects to sustain attention over long periods. Reaction time and accuracy in detecting infrequent events can both be improved. There is even the suggestion, from a Stockholm psychology laboratory, that the alerting effects of nicotine may go a little way towards countering impaired performance produced by the depressant effects of alcohol."

Rob Stepney in *New Society*

Continued from Page One

X-Ray Laser

Proto II. Very high current from the pulsed-power accelerator passes through the gas and causes a large magnetic pressure. This pressure produces a rapid inward radial acceleration of the gas — an implosion.

The gas — now a plasma — is heated to very high temperatures (several million degrees Celsius) when the imploding gas stagnates on the cylindrical axis of symmetry (the imaginary line running down the center of the pipe-shaped annulus). Such a high-temperature plasma radiates x-rays.

“Producing x-rays requires several conversion processes,” Keith notes. “First, electrical energy from the pulsed-power machine, then magnetic energy, then kinetic, then thermal, and finally non-thermal radiation.”

So far, the team has demonstrated that it's possible to convert a significant fraction of the total energy passed into the plasma into non-thermal x-ray radiation. These are the x-rays that pump the laser transition; that is, these x-rays create the energy inversion necessary to produce the lasing effect. (The rest of the energy is also converted into radiation but at lower energies.)

“So we've demonstrated that we have an efficient x-ray pump,” says Keith. “Now we're in the process of modifying Proto II to increase the total amount of x-rays produced. We'll soon be able to begin experiments to couple this radiation into an x-ray laser medium.”

The Sandia research team includes Gene

Colloquium Report

Science, Journalism & Other Anomalies

George Alexander, science writer for the *Los Angeles Times*, recently spoke to Sandians about the satisfactions and difficulties of trying to explain science to the general public.

“The principal challenge in science reporting is to write accurately about scientific developments in straightforward, nontechnical language that will be comprehensible to a lay audience,” said Alexander. This is not always easy.

Alexander illustrated that fact with an anecdote about a story he wrote on an astronomical measurement taken at an Egyptian pyramid. The position of a certain star had changed vis-a-vis the pyramid since it was built some thousands of years ago. Measuring the angle of this shift would indicate how much the African plate had moved (a tectonic plate, not somebody's lunch). So Alexander called up a mathematician (department head, no less) at a major West Coast university to calculate the shift. Alexander then included the result in his story.

The figure was wrong, and Alexander very soon heard from grammar school students, archaeologists, math teachers, and almost everyone in the world who had taken any trigonometry (“You dummy,” the letters would invariably begin). He said that the university would remain unnamed but that its initials are UCLA.

Amusing though this story may be (now), it points up the need for close cooperation between scientist and journalist to achieve the goal of a well-informed



ATOP PROTO II, where experiments that may lead to an x-ray laser are taking place, are (from left) Keith Matzen, Rick Spielman, and Warren Hsing (all 1273).

McGuire, x-ray laser schemes; Rick Spielman, and Sam Lopez, gas-puff experiments; Warren Hsing and Doug Weidenheimer, alternative pumping schemes; Pete Palmer, Dave Hanson, Ray Dukart Al Widman, and Roy Williams, x-ray diagnostics; Tom Hussey, implosion

physics and stability theory; Pete Rand and Kevin Bieg, laser medium fabrication; Jim Peek, atomic energy level calculations; and Ken Mikkelson, accelerator operations. A paper on the development of the intense radiation pump source will appear this fall in the *Journal of Applied Physics*.

general public. The news media, in the form of newspapers, television, and magazines, are primarily responsible for the public's perception of science. While the science reporter's task may appear clear cut, areas such as sensitive scientific discoveries and predictions can present dilemmas.

For instance, stories about the advances in medical research that hold out hope for cures of various diseases can lead to many anxious inquiries from people who think that the cure is available for them right now. Balanced reporting of such experimental results has to be weighed against the predilection of most editors for stating the short-term “pay-off.”

Serendipity plays a large role in getting good stories. Says Alexander, “Eavesdropping on the Washington Metro, I once heard two passengers talking about new Mayan temples discovered in Yucatan by LANDSAT. Back in Los Angeles, I began calling Mayan specialists throughout the US — no one knew anything about it. Finally I called an American scholar in Merida who knew about the discoveries.

Another time, during an interview, an astronomer made a casual remark about the imminent closing of Mt. Wilson observatory. It turned out to be a major story, much bigger than the subject of the interview.

The above anecdotes demonstrate that science writers go where the scientists are — that they are basically curious people who want to know how things work. Science writers actively seek to satisfy their curiosi-

ty; scientists do this by experimentation, science writers by describing the experiment to the public.

Science writers first gained importance in the print media during the 1920s when some newspapers hired them on a full-time basis. In the 1930s and 40s, the press tended to look upon scientists as “shamans, miracle workers.” At the very least there was an attitude of “profound respect” that abated somewhat after World War II, due to misgivings about nuclear power. Alexander thinks that now the media are going back to the old attitudes. “However, in journalism there's still too much of a ‘gee whiz’ approach to science, mostly among editors.”

Most newspapers pick up their science stories from the NY Times/Washington Post/L.A. Times wire service that makes all the science stories written by these three newspapers' staffers available to subscribers. “That's why many papers don't need full-time science reporters,” says Alexander.

Alexander proffers some advice to dealing with the press: “If a reporter calls you at 3 or 4 in the p.m., don't waste your time going into a detailed explanation, because the reporter is obviously trying to meet a deadline less than two hours away.

“When being interviewed by a TV reporter, watch the line of questioning about something being ‘dangerous.’ If you give in and say that it might be, given a number of unlikely conditions, the story will likely be introduced on TV that night with ‘scientists are concerned about the danger of...’”



GIL LOVATO (7474-1), RAY LEUENBERGER (7484), and MIKE LUCAS (7472-2)

Supervisory Appointments

GILBERT LOVATO to supervisor of Coil Fabrication and Apprentice Training Section 7474-1, effective Aug. 31.

Since coming to Sandia in October 1957 as an electronics trainee, Gil has had many assignments in the process development laboratories department. He has been a Master Craftsman in electronic fabrication since 1981, and has been an electronics apprentice instructor for three years. Gil has served in a number of capacities on the Joint Apprenticeship Committee.

His favorite leisure activity is playing golf. Gil and his wife Eleanor have two children. They live in NE Albuquerque.

* * *

RAY LEUENBERGER to supervisor of Mechanical Process Engineering Division 7484, effective Sept. 1.

Ray joined the Labs in August 1966 as a staff member with the electromechanical components organization. He's worked with the fluidics group, was project engineer on the cost reduction program for the MC2935 and MC3790 strong link switches, and was a member of the Sandia group that worked on proposals for the power supply in the SDI program.

Ray received BS and MS degrees in ME from the University of Kansas. He is a member of ASME. He enjoys backpacking, camping, hunting, fishing, and working with boy scouts. He and his wife Anna have three children. They live in Tijeras Canyon.

* * *

MIKE LUCAS to supervisor of Plastic Process Laboratory Section 7472-2, effective Aug. 31.

Mike joined Sandia in September 1971 in the Specialties Apprentice Program. After completing the four-year program, he joined the plastics group. He received his TI certificate in materials in 1980 and, last year, received his bachelor's degree in mathematics from the U of A. Since 1982 Mike has been with Ceramic Components Development Division 2531.

Mike plays in a city softball league and takes part in the activities of his church. He's vice president of the Sunport Optimist Club, and chairman of the club's NM Junior Miss project. He and his wife Frances are members of the Association for Retarded Children; they provide a foster home for two boys from that group. They also have two children. The Lucas' live in the NE heights.

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J.B. HAMLET (154)

J.B. HAMLET to supervisor of Payment Processing Division 154, effective Sept. 16.

Since joining the Labs in 1956, J.B. has worked in purchasing, production, production programming, business methods, computer programming, and financial systems analysis. Most recently, he's been with Financial and Policies Procedures Division 131.

J.B. received his BBA from Hofstra University (Hempstead, NY) and has done graduate work at UNM. He enjoys hiking, photography, woodworking, boating, and fishing. He and his wife Pat have two children. They live in NE Albuquerque.

Trinity Site Tour Set for Oct. 6

The annual Trinity Site tour will be held on Saturday, Oct. 6. A ceremony at 11 a.m. at Ground Zero will include a guest speaker who saw the first explosion. This year's tour features the opening of the George McDonald ranch house to the public for the first time. The house, a National Historic Landmark, has been restored to its 1945 condition when it was used as the location for assembling the plutonium core to that first atomic bomb.

Also new this year are the procedures for entering the missile range. The simplest way of getting into Trinity Site from the north will be to go to the range's Stallion Gate located five miles south of Highway 380. The turnoff from Highway 380 is 12 miles east of San Antonio and 53 miles west of Carrizozo. This gate will be open from 9 a.m. to 1 p.m., and visitors will be allowed to enter or exit any time during that period.

All visitors arriving at Trinity Site will be parked outside the fence at Ground Zero. The missile range will provide shuttle bus service to the McDonald ranch house, two miles away.

Remember that photography is prohibited on WSMR except at Trinity Site. Drinking water will be available, but all drivers should carry water with them and ensure that they have a spare tire and a full tank of gasoline when they start out.

Neighborhood Center Needs Clothing, Lumber

From Gary Shepherd (2614) comes word that a couple of projects of the Neighborhood Center, which serves the South Broadway area of the city, could use some help.

The group's clothing bank could use donations, particularly infant apparel and furnishings.

The Center is aiding STOP (Service to Offenders Program) to help return ex-offenders successfully to the job market. The program uses the Neighborhood Center's woodworking facilities for training. Additional shop tools and materials, particularly lumber, are needed.

All donations are tax deductible, and pickup can be arranged. If you can help, call Gary at 296-1238 after 5.



Bob Mikkelsen (5321)

RETI RING

Fun & Games

Racquetball — The third annual Sandia Labs Racquetball Tournament is on Oct. 27 at the Supreme Courts Racquet & Health Club, 4100 Prospect NE (behind Four Seasons). It starts at 4 p.m. and includes door prizes, liquid refreshments, and "munchies" as well as full use of the Club's facilities. Players of all skill levels, beginner to advanced, are welcome. (A free clinic at 3 p.m. will aid those who want to learn the game or to brush up on the rules.) The tournament is open to all SERP and SERP-eligible people (Sandians, DOEans, and dependents). The emphasis is on fun; come on out. More info from Betty Mowery (7475) on 4-3673, Chet Hine (6-4260), or Tom Lenz (SERP) on 4-8486.

Bike Racing — A Turquoise Trail Road Race is set for Oct. 7 with registration at 7 a.m., citizen classes at 8, and USCF classes at 9. The 33-mile race begins at Molly's Bar in Tijeras and follows North 14 to Cerrillos. The race is sanctioned by the USCF (US Cycling Federation) and is sponsored by the Turquoise Trail Association. More than \$1250 in prizes (including dinners at restaurants along the trail, pottery, paintings, jewelry, cash, etc.) go to the winners in various classes. T-shirts go to the first 150 to sign up. If you wish, register in advance with George Gamble (242-6833 or 298-6472.)

Table Tennis — A change in the time of the upcoming table tennis tournament scheduled for Saturday, Sept. 29, is announced. The tourney will start at 11 a.m. at the Monroe Junior High auditorium. To sign up or for more information, call Dave Sealey, 4-4475, Jim Sanchez, 4-1908, or Vic Smith, 4-0161.

Golf — Overall winners — first, second, and third place — in the recent SGA Cup Tournament are Bill Lutgen (7653), Linda Branstetter (1524), and Charles Adams (7543), first flight; Brian Finley (ret.), Bill Duggin (1221), and Frederick Salas (2514), second flight; and Robert Varga (7542), Andrew Quintana (3412), and George Beller (3721), third flight.

SGA's next tournament, a best ball event, will be played Oct. 6. For more info, call Kevin Linker (6227). Kevin reports that plans for the annual SGA banquet are shaping up. It's scheduled Oct. 30.

Make-Up for Mental Health



... "Jean Ann Graham, an Oxford-trained social scientist who specializes in the psychology of cosmetics ... believes that the application of standard facial make-up and proper hair care can play an important part in maintaining one's mental health. ... To the extent that cosmetics can be used to improve the level of physical attractiveness, they can help individuals achieve a more favorable self-concept. 'It seems likely,' says Graham, 'that an improvement in looks by using cosmetics leads to more favorable evaluations, or judgments about how we see ourselves. This, in turn, produces an increase of self-esteem which surely results in greater self-confidence.'"

Jane Biberman in *Pennsylvania Gazette*

Second Series Ahead

Biologues Explore Electron Microscopy, Catalysis

The second "Biologues" seminar series, introduced last year by Sandia and the UNM School of Medicine, will get underway on Oct. 11. Coordinators for the series are Drs. Paul Mann and Bob Kelly (Medical School Anatomy Department), Glen Kepler (1810), and John Panitz (1134).

"We had a good series last year," said John. "Biologues is a contraction of Biotechnology Dialogues, and this series of seminars explores problems of common interest between the biological and physical sciences. Attendance at these seminars indicates that there is a lot of interest in this concept. Following last year's program, which featured dual interests of the two sciences in robotics and artificial intelligence, biologists and physicists are talking, and research collaborations are beginning."

Speakers at this year's seminars will basically follow two themes: the use of electron microscopy in both biological and physical sciences and the overlap of catalysis in both disciplines. Electron microscopy discussions will include the visualization of both large and small objects, measured in microns and angstroms respectively. Catalysis is a process that enhances the direction of a chemical reaction. From a physical point of view, the chemical reaction usually occurs on a solid substrate; in biology, catalytic reactions usually occur on macromolecular substrates and involve the interaction of biological molecules, such as enzymes.

The first speaker in the series will be Ivar Giaever (GE R&D Lab, Schenectady, NY) on "Electric Fields and Mammalian

Cells." Giaever shared the 1973 Nobel Prize in physics (with Leo Esaki and Brian Josephson) for his work on superconductivity. He later became interested in the biological sciences and developed an assay, based on the body's immune reaction, to detect serum proteins in blood. "Ivar is a scientist who has made the transition from the physical sciences to the biological sciences," John says. "He conveys the excitement of someone operating at the forefront of interdisciplinary research." Giaever's seminar will be held at the Nursing Pharmacy Bldg., Rm. 135, UNM North Campus at 3:30 p.m., Oct. 11.

Other Biologues will be held alternately at UNM and Sandia. The UNM programs will be held in Rm. 203 of the Basic Medical Science Bldg. on the North Campus. The Sandia programs will be held in the Bldg. 822 conference room. Refreshments will be served from 3 to 3:30 p.m., and participants will have the opportunity to meet informally with the speaker and with colleagues in both disciplines; the Biologue seminars start at 3:30. A shuttle bus service will be provided for Sandians who wish to attend the UNM seminars. Service will be on a first-come, first-served basis. The bus will leave from Gate 6 promptly at 2:30 p.m. and return to Gate 6 at 5 p.m.

Other dates and speakers include: Nov. 1, John Trotter (UNM/Anatomy), at Sandia; Dec. 6, Tom Headley (1822), at UNM; Jan. 10, David Bear (UNM/Cell Biology), at Sandia; Feb. 7, John Panitz (1134), at UNM; March 7, Lee Peachey (Univ. Pa.), at UNM; and April 4, Wayne Goodman (1134), at UNM.



"THE CONVINCER," a device used by the New Mexico Traffic Safety Department to persuade passengers that wearing seat belts is vital, is checked out by Gary Montague of Safety Engineering Division II 3442. The machine will be at Sandia Oct. 15-17. Gary reports that the car seat provides a sudden jolting stop after a 7 mph roll down an incline. "Very convincing," he says. "Without a seat belt, you would definitely be tossed from the seat." In 1983, 293 occupants of passenger cars, pickups, vans, or four-wheel-drive vehicles were killed in motor vehicle accidents in New Mexico. It is estimated that 213 lives may have been saved if all persons involved had been wearing seat belts. Time and location of the safety demonstrations at Sandia will be announced in the next *Weekly Bulletin*.

Take Note

The American Lung Association of NM needs volunteers to help in a variety of activities. The Lung Association directs its efforts toward the prevention of lung diseases such as emphysema, lung cancer, chronic bronchitis, and asthma, and tries to focus public attention on health hazards caused by smoking, air pollution, and occupational pollutants. Anyone wishing to volunteer is asked to call 265-0732 or visit the office at 216 Truman NE.

The South 14 Bookstand — Essayist and story teller Tony Hillerman is also a professor of journalism at UNM. In *The Great Taos Bank Robbery & Other Indian Country Affairs*, he includes a collection of yarns (some fiction though most are factual) about Indians, cowboys, and other New Mexico folk and their interaction with the land. In *Othello in Union County*, one of his factual stories, a cowboy with a penchant for learning and scientific observation noted some strange bones in the wall of a deeply cut arroyo. This was in 1908 near the small town of Folsom. The cowboy was George McJunkin, he was black, and he knew enough of anthropology to recognize his find as significant. His credentials were thin, however, and many years were to pass before the scientific community came to acknowledge that these bones did indeed establish the existence of man in the new world many, many years earlier than had been thought. *The Great Taos Bank Robbery*, published by UNM Press, is now available for \$6.95 at the LAB NEWS office, Bldg. 814.

Don Spatz (5119) and his wife Narosonia are teacher-leaders in the People to People High School Student Ambassador Program. They will lead a group of students on a five-week European visit next summer.

People to People provides a program in which students are introduced to the politics, economics, and culture of countries in Europe and Asia. The purpose of each Student Ambassador delegation is the balanced exposure to a variety of nations within a specific region, focusing on economics and government, industry and agriculture, and education and culture.

Parents of high school students interested in the program for next summer can call Don at 299-0410.

A five-program lecture series, featuring discussions of some of the most recent and controversial scientific discoveries, will be presented next month in Santa Fe. The lectures, sponsored by Recursos de Santa Fe, will be given by the scientists who are making the discoveries. They will be held at The Forum at the College of Santa Fe on Tuesday evenings at 7:30.

Genetics will be the topic of the first lecture on Oct. 2. Theodore Puck, Director of the Eleanor Roosevelt Cancer Institute and Florence Sabin Laboratories, will speak on "The Gene Doctors: Genetics and New Medicine."

Doyle Farmer, Los Alamos National Laboratory, will discuss "Chaos in the

Physical World: Reconciling Determinism and Free Will," on Oct. 9.

"Death to Dinosaurs: New Evidence from the Bottom of the Sea" will be presented on Oct. 16 by Walter Dean, United States Geological Survey.

Dr. Stuart Kauffman, Professor of Biochemistry and Biophysics at the University of Pennsylvania, will discuss "Natural Principles of Selection: Artificial Intelligence and Adaptation in Evolution" on Oct. 23.

The final lecture on Oct. 30 will be a report from Roger Anderson, Professor of Geology at UNM, on "The End of Eden: Prospects for Climatic Change."

Tickets for the series (\$35) can be purchased at the door or by calling 1-982-9301. Tickets for individual lectures (\$7.50) will be available if space permits.

The Sandians (a club open to all female employees, wives of Sandia employees, and wives of associated contractors and consulting firms) provides educational and social activities for its members, and helps introduce newcomers to Albuquerque. General meetings, held on the first Monday of each month at a member's home, include a speaker or other type of program. Various interest groups also meet each month; a babysitting cooperative and Couples' Gourmet are two popular aspects of the club. For a copy of the club's monthly newsletter, or further information, call Mary Roehrig at 281-2695.

"Medical Services: What Price Delivery?," a health care forum sponsored by the League of Women Voters, will be held Sept. 29 from 9-11 a.m. at St. Thomas of Canterbury Church, 425 University Blvd. NE. Panelists are Max Bennett, Planning Director UNM Medical Center, and Associate Professor of Family Practice, Community and Emergency Medicine UNM; Richard Helm, Sr. VP St. Joseph Hospital; and Dr. Derick Pasternak, Medical Director Lovelace Medical

Center. The public is invited; no reservations are required.

UNM's Department of Geology is sponsoring a series of "401 Seminars" this fall. All are free and open to the public; each will be held at 11 a.m. in Rm. 122 of Northrop Hall. For further information, call the Department on 277-4204.

Oct. 4 — "Spatial and Temporal Distribution of Kimberlites in the Siberian Platform," by Edward Erlich of the U.S. Geological Survey in Denver;

Oct. 8 — "Log Interpretation," by Mike Davies of Southern Union Gas Co.;

Oct. 11 — "Spectroscopic Study of Glasses," by Carolynn Nelson (1845);

Oct. 16 — "Rift Deformation Produced by Combined Extension and Shearing," by Martha Withjack of Arco Oil and Gas (the American Association of Petroleum Geologists' Distinguished Lecturer);

Oct. 18 — "World Major Metal Deposits: Distribution and Future Outlook," by Charles Meyer of UC Berkeley;

Oct. 25 — "Jurassic Dinosaurs and Stratigraphy of the Cichuan Basin, China," by Spencer Lucas of UNM;

Nov. 1 — "Comprehensive Model of Hydrothermal Ore Deposit Genesis," by William Atkinson of the University of Colorado;

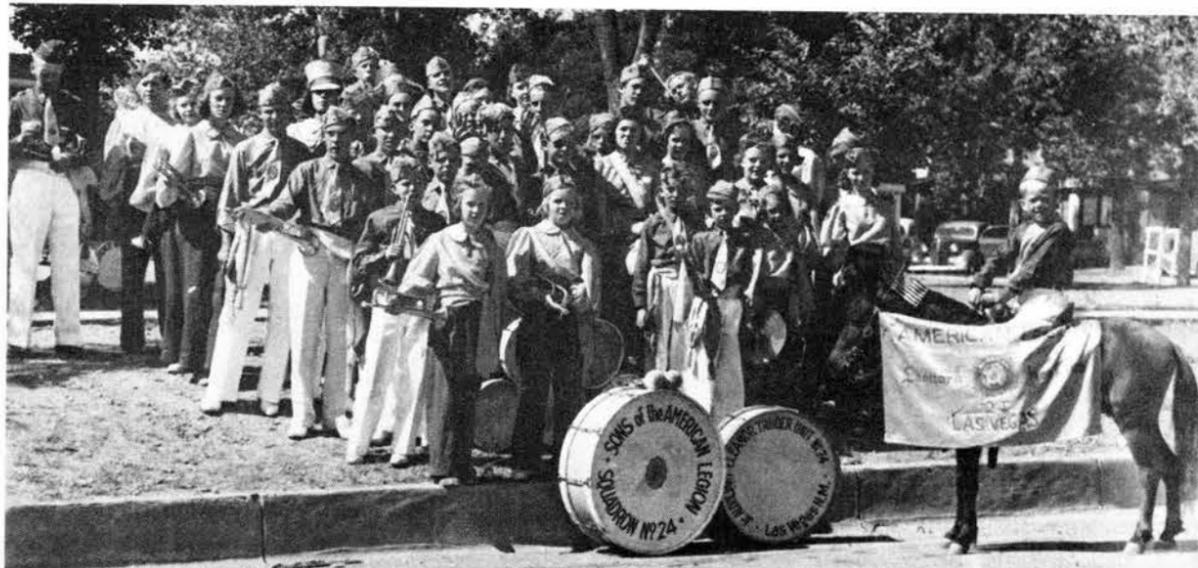
Nov. 8 — "Magmatic Events on Hawaii Islands, 1983-84," by Toni Duggan of UNM;

Nov. 15 — "Update on Data Integration Techniques at Los Alamos National Laboratory," by Stephen Bolivar of LANL;

Nov. 29 — "Porphyroblast Nucleation: Growth and Dissolution in Regionally Metamorphosed Rocks as a Function of Strain Partitioning During Foliation Development," by Timothy Bell of James Cook University in Australia (currently on sabbatical at UNM);

Dec. 6 — "Unraveling the Cryptic Cryptocrystallinity of Marine Manganese Nodules," by Malcomb Siegel (6431).

Favorite Old Photo



ROY SMITH (2632) and his Shetland pony, "Peewee," appeared in many parades in and around Las Vegas, N.M., in the late 1930's, when this picture was taken. Roy appears to be the mascot for this drum and bugle corps made up of children of members of the American Legion.

feed back

Q. To allow us to reconcile our taxes with our "Bell System Savings Plan" income, Sandia should:

1. Insist the Bankers Trust mail the TF12 annual summaries sometime in January. I just got my 1983 summary in mid-March, which is much too late for my 1983 tax return filing.

2. Demand that the "year-to-date" total of BSSP payroll deductions on the last paycheck for a calendar year be consistent with the Bankers Trust record of our allotment for that year.

3. Publish the AT&T stock value for a periodic partial distribution (PPD) shortly after the distribution is made, but at least by summer of the year of the distribution. Each October-December, your office publishes a continual stream of information to Sandians — it would seem that it would be little additional effort to report to us a really valuable piece of information. It is inexcusable that the PPD stock value on the transfer date of 2/4/83, for example, is not reported to us until Feb. 27, 1984, over one year later! The stock value information is needed in October 1983 for financial planning, and at least by Jan. 31, 1984, for 1983 tax purposes.

4. Pressure Bankers Trust to get their act together. Why can't the stock value shown on the TF8 distribution form be accurate? That is, why can't the TF8 distribution value be consistent with the distribution value on the W-2P for tax purposes?

A. We reviewed your four suggestions and the following comments are keyed to each one:

1. The market values of employee units reported in the TF12 annual statement are based on December unit values. Normally the December unit values are determined on or about January 25 and the statements are mailed out in February. The divestiture of AT&T caused a significant delay in determining and reporting the December 1983 unit values.

2. The information on wages and deductions reflected in the Sandia employee pay statement must be limited to wages actually paid and deductions actually withheld. The information on savings plan allotments reflected in the Bankers Trust annual statement (TF12) includes allotments received by the Trustee that apply to the year ending December 31. To reconcile your records for 1983, use the cumulative deduction amount reflected in your last 1983 pay statement and subtract the deduction withheld from your pay check paid on January 3, 1983, and add the deduction withheld from your pay check paid on January 5, 1984. (Similar reconciliations are common throughout the participating AT&T companies.)

3. Sandia publishes the complete annual listing of market values that apply to all contributions and withdrawals as soon as AT&T provides the listing. Employees who have an urgent need for market values of AT&T shares can call the toll free number 1-800-631-3311, provide the respondent with the share certificate issue date, and ask for

the corresponding market value on the date of transfer.

4. The values shown on the TF8 statement of distribution are consistent with the values shown on the W2P except where AT&T shares are included in the distribution. If AT&T shares are involved, perform the arithmetic functions required on Lines 2 and 3 of the tax worksheet to reconcile the TF8 information to the W2P information.

J.R. Garcia - 3500

Q. For years we've been told that the Labs does not have sufficient manpower to enforce the parking regulations. We are told to rely on peer pressure. Now, when people park in someone's reserved space (translation: department manager or above), we suddenly have the manpower to have the car towed within an hour! I'm a little curious: does this mean we have enough manpower to patrol the carpool parking now?

A. In the past we have pointed out that using Security personnel to enforce corporate parking policy interferes with our primary security mission. This remains true. Also still true is the fact that supervisory involvement and peer pressure are necessary ingredients in a program of any corporate policy enforcement. "Following the rules" is simply a trademark of good citizenship and a responsibility of all employees.

Regarding the recently intensified enforcement of parking rules, we attempt to put resources where they are needed most. Our policy provides for assignment of reserved parking for those of department manager level and above. These spaces are normally very near our gates, making them especially attractive to those who ignore the rules. The problem is compounded when the authorized user comes to his/her parking space and finds someone else using the space. This problem has recently become so bad that special action was necessary. We hope such action won't be necessary in other special parking areas like Visitor and

Home Sprinkler Systems

Fire: Reduce the Risks

Live in the West, in the summer, during the day.

Statistically, that's the way to lower your chances of losing your life in a fire. Practically, check the new, lower cost sprinkler systems if you're building a home — see below.

During 1983, 983 people died in 258 multiple-death fires (those involving three or more fatalities) in the United States. Houses, duplexes, and apartments accounted for almost 80 percent of these deaths.

The statistics indicate you are safer during the daytime — 80 percent of these multiple death fires occur between 8 p.m. and 8

Car Pool parking areas. We are currently devoting more manpower to patrolling those areas.

C.L. Brumfield - 3400

Q. Each morning the occupants of T-53 are subjected to strong concentrations of engine emissions from diesel and gasoline engines from the Motor Pool. Throughout the year, not just in the winter, the engines of dozens of Sandia's vehicles are started early in the morning and left idling for a while. Then at noon and at breaktimes, the drivers bring their vehicles back in and leave the engines idling until work begins again.

The result is pollution of the air in our offices, not to mention the waste of fuel. We know that the inhalation of the fumes causes immediate and severe headaches; we feel it may also contribute to respiratory diseases and cancer. (None of us in T-53, incidentally, smokes.)

If idling the engines is necessary, could it not be done in an area away from occupied buildings?

A. Diesel engines must run between 15 and 20 minutes for proper warm-up time and for proper air-pressure build-up. There is also a three-to-five-minute shutdown time on diesel engines to enable the turbo-charger to cool.

Drivers have been told that, when breaktimes and lunchtimes occur, they are to shut their engines off. Most diesel engine equipment is now being started on the east end of the buildings, and we will try to keep the equipment as far away as possible.

This matter has been transferred to Industrial Hygiene Toxicology Division 3311. They are to install meters in Bldgs. T-53 and T-54 to measure the carbon monoxide and will inform Transportation Section of their findings.

During winter months, the diesel trucks must be started where electrical plugs have been installed south of Bldgs. T-53 and T-54.

C.L. Brumfield - 3400

a.m. — during the summer, and in the western part of the country.

Every home should have one or more smoke detectors, an evacuation plan, and an ABC fire extinguisher.

But the ultimate in home fire safety is the automatic fire protection sprinkler system. Such a system uses a new generation of more sensitive, faster-acting sprinklers that comply with National Fire Protection Association Standard 13D. The standard, for one- and two-family dwellings and mobile homes, now also permits new techniques using certain plastic pipes that lower construction costs considerably. For more details, contact Fire Protection 3662.

MILEPOSTS

LAB NEWS

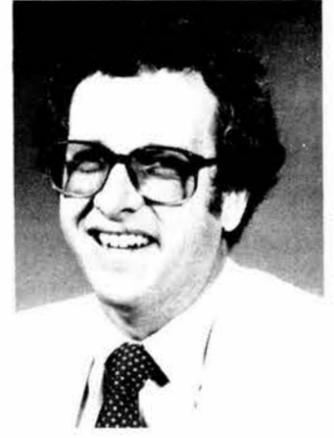
SEPTEMBER 1984



Cleo Kerr (3400) 15



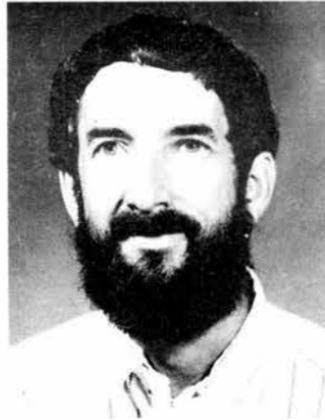
Dave Northrop (6253) 20



John Cantwell (3520) 20



John Gardner (3153) 20



John Brabson (2641) 10



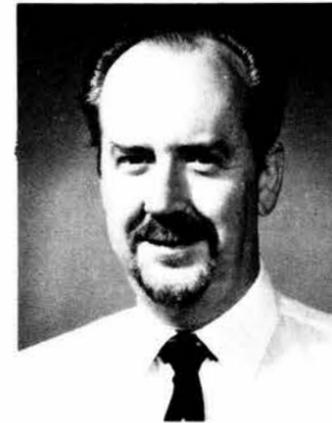
Len Beavis (6224) 30



Frank Zamora (7654) 15



Bob Berry (5211) 30



Merle Riley (1126) 15



Luke Vortman (7111) 35



Cliff Ballard (2531) 10



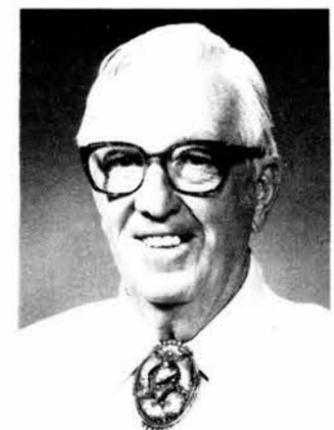
Vincent Strascina (5264) 30



John Van Dyke (2641) 15



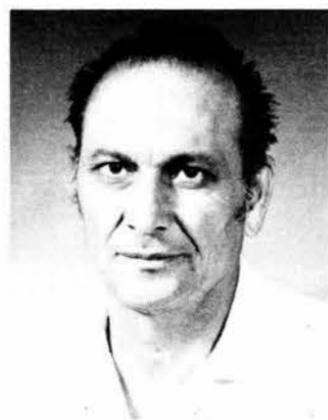
Donald Markwell (7265) 30



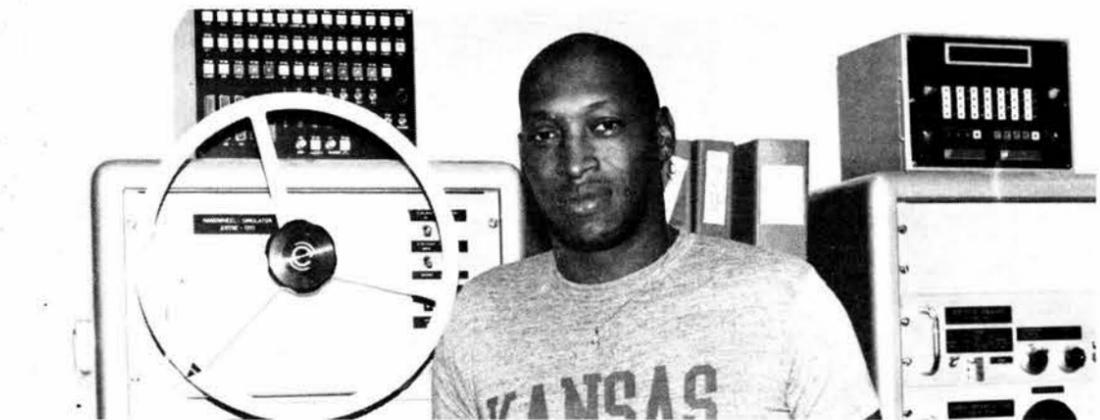
Red Madlener (2531) 30



Trish Self (3733) 20



Fidel Salazar (7473) 15



R.S. Taylor (7171) 15

MILEPOSTS

LAB NEWS

SEPTEMBER 1984



Dave Schafer (7171)

30



Walt Errickson (5171)

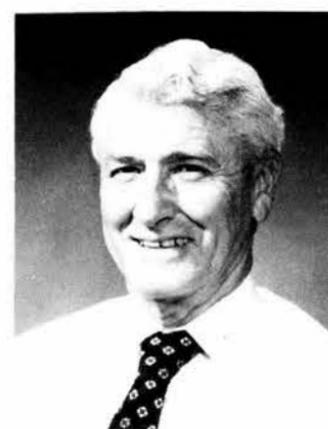
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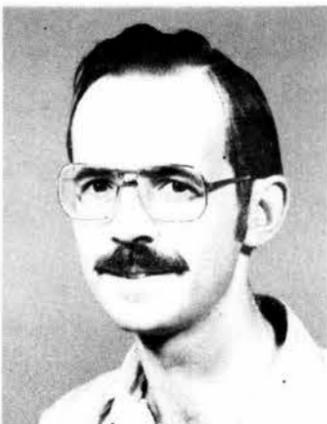
Bobbie Welch (3421) 15



Hoss Hostetter (324) 30



Mel Snyder (4021) 35



Joe Woodworth (1244) 10



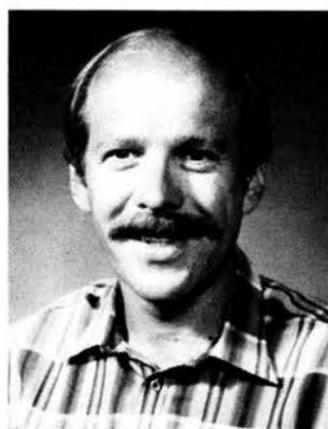
Catherine Devarenne (154) 30



Alice Herron (3421) 15



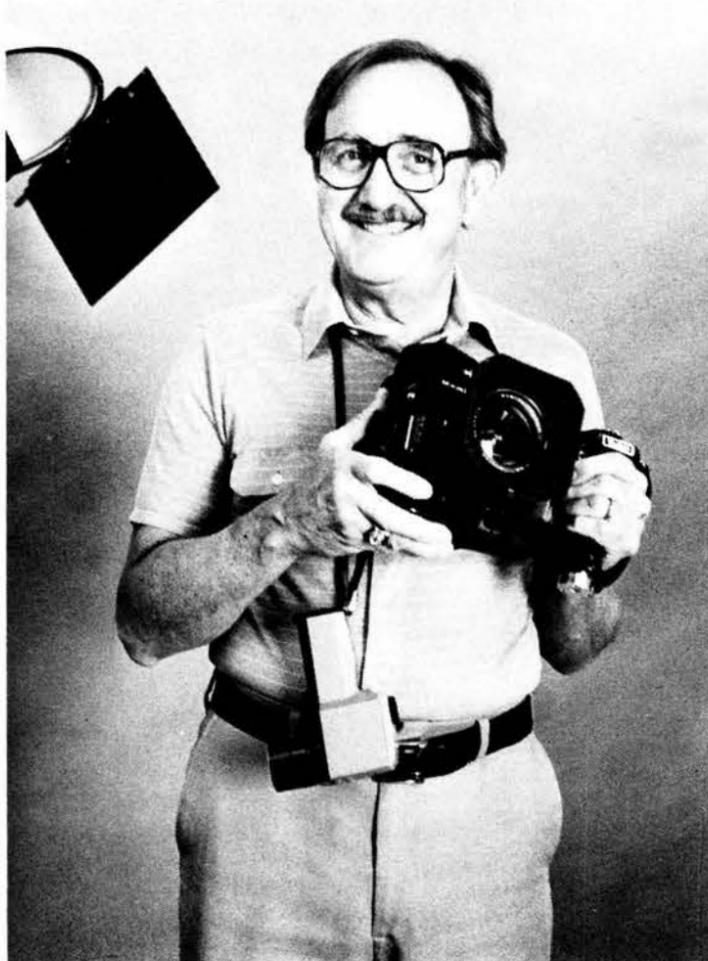
Mary Walker (7625) 25



Bill Kass (2526) 15



Dave McArthur (6423) 15



Louis Erne (3162)

30



Bill Brown (8161) 25



Gabe Gabrielson (8233) 25



Bob Crow (8026) 30

GENDERALLY SPEAKING —



Somebody ought to start a campaign for real English. If Mike Shields...was railing against "he or she," "he/she," and "(s)he," then I'm with him all the way. The last two can't even be pronounced. But he forgets that English does have a common gender and it looks like a plural. "If anybody comes, tell them I'm out." "He or she" can always be replaced by "they" and it would be nice to see it done more often in print.

Your correspondent Mike Shields may think that "he" embraces "she" but "she" is always left uncertain as to whether "she" is being embraced by "he" in each particular instance because unfortunately "he" is often doing nothing of the kind.

Letters to *New Scientist*

Congratulations

Jeffrey (1813) and Ann Reich, a son, Nathaniel Jeffrey, Aug. 23.

Jim (2144) and Lucy (2610) Schwank, a son, James Ralph, Aug. 18.

Steve (1265) and Linda Slutz, a son, James Robert, Sept. 17.

Sympathy

To Frank Perry (1263) on the death of his mother Aug. 5 and his father Sept. 15 in Washington, D.C.

To Christina Baca (7631) on the death of her mother in Albuquerque, Sept. 13.

Welcome

Albuquerque

Margaret Harvey (3511)
Timothy Leonard (6225)
Rodney Williamson (1831)

California

Robert Boatman (1134)
Anthony Griego (2124)

Missouri

Terry Ernest (7542)
Jayne Ward (5268)

New York

Edward Coghlan (3642)

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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

TWIN bed (mattress & box springs), \$45 OBO. Barnes, 292-7297.
WASHER & dryer, \$125 or \$75 ea.; garage door, 7 x 16, \$75. Lackey, 898-6638.
SWAN 500C amateur transceiver w/PS; SWAN 5 band vertical antenna, coax & radials; other ham accessories. Butler, 256-1957.
17 CU. FT., Penneys refrigerator / freezer w/ice maker, avocado, \$150. McConahy, 884-5071.
FIESTA dress, Jeanette original, sz. 16-18, cream & brown w/gold trim, \$40 OBO. Drozdick, 298-9244.
STEEL rack for LWB pickup, \$75; Outers clay pigeon target thrower & 1 box of clays, \$35; tow chain, HD 3/8 x 16", \$20. Wright, 296-3850.
(2)-5MB Winchester disk drives, for use with ST-506 controller, \$300 ea. Montry, 821-3758.
SEARS gas clothes dryer, 5 yrs. old, \$75; single mattress & box springs, \$40. Carrick, 808 Dakota SE, 266-0191.
COCKTAIL ring, 14K gold, heart shape w/8-diamond cluster, .36 carat, appraised at \$950, \$500. Harker, 281-3435.
DIRT riding equipment: shoulder pads w/chest protector, nylon pants w/guards, leathers, VDO speedo w/universal adapter, \$145 takes all. Lassiter, 299-1492.
SOFA, 6 1/2', oak frame, new upholstery, \$275; Sears Eager-1 rotary power mower, \$65. Freyermuth, 299-2053.
DRUM set w/extra cymbals, \$350; clarinet w/case & music stand, \$150; stationary bike, \$60. Barnaby, 265-4353.
WILSON 1200 LT irons, 2-PW, stiff D1, \$120 OBO; 3 drivers, \$35 ea. Stang, 299-8688 after 5.
IRISH Setter, 2 yrs. old, full papers, price open. Gray, 265-1883.
GUNS: Colt officers' match pistol, Ruger 77-250, Savage 257, Roberts mod. 88, Winchester 308. Zamora, 836-6101.
WOOD gates, decorative, 6' x 3', 3' x 3'; decorative wood window 40" x 29"; plexiglass storm windows, fit 3-bdr. Roberson house, \$75 for all. Spalding, 298-7633 or 292-4680.
HAFNER DH-200 power amplifier, \$225; Denon DP-1250 turntable w/Grace 707 MKII tonearm,

\$225; Talisman alchemist cartridge, \$275. Booth, 296-3955.
COOLER covers, 3, metal, 31 1/2" x 37" 3/4", \$6; 1/2 HP motor, Dayton, 2-spd., \$20. Lambert, 344-9012.
FREEZER, Sears 30 cu. ft., frostless, upright, white, \$300; GE refrig., approx. 12 cu. ft., white, \$150 OBO. Taylor, 266-3302.
REFRIGERATOR w/top freezer, Sears 14.5 cu. ft., brown, \$250. Coalson, 892-6438.
ANTENNA tower, 35', self-supporting foldover, hybrid mini quad, rotator, \$200; Jemco RC "zero" airplane, \$50. Huddle, 881-2971.
TRAVEL trailer, 15', new rug & upholstery, 2 gas bottles, \$1400. Campbell, 296-7014.
ENTERTAINMENT center, solid wood, 70" x 45" x 16", \$125. Smith, 281-3814.
CANON AE-1 program, \$250; sofa & loveseat, brown, \$85. Harrison, 345-5166, 836-7259.
TENT trailer, '81 Jayco J-Flight 6, stove, ice box, surge brakes, water storage, sleeps 6, \$2595 OBO. Downie, 293-1039.
SILVER solder, 45% & 50% silver, 55 oz. of wire. Diegle, 294-5565.
DISHWASHER, Sears undercounter, \$25. Timmerman, 298-4587 after 6.
ALTO Saxophone, Yamaha, \$375. Koehler, 293-7017.
ADMIRAL refrig/freezer, 30 cu. ft., yellow, \$200. Manhart, 266-1068.
CHAIN SAW, elec., 10" bar, Craftsman, \$25; hedge trimmer, Disston cordless electric w/charger, \$25. Burbank, 299-1460.
FURNACE, 80K BTU, \$300. Wronosky, 296-7265.
GARAGE SALE: stereo, TV, tape recorder, toys, baby items, household items; Sept. 30 only, 7407 Gila NE. Miyoshi, 821-9118.
BABY front carrier by Gerry, \$5; Sears toddler's bicycle seat, \$10; misc. baby toys. Roehrig, 281-2695.
GARAGE SALE, Sept. 29: TVs, many other misc. items, 12514 Indian Trail NE, 9 a.m.-5 p.m. Graham.
SCIRROCO travel bag by Andiamo, cost \$85, sell \$65 OBO; alcohol lamp for jewelry forms, \$1.75. Henry, 266-6467.
FORD shop manual for all '71-'72 models, 5 vols., \$15; 2 15" Ford rims, \$15. Holmes, 292-0898.
TI 58C & PC100C printer, \$60 OBO. Prior, 296-2930.
PLYWOOD sheet, 4' x 8' x 3/4", AD grade, \$10. Dippold, 821-5750.
SPALDING golf club set, woods, irons, bag, \$150; 3 pieces Samsonite hard luggage, all \$75; Acme juicerator, \$50. Purdue, 256-0802 after 1.
FRONT axle '78 Blazer, w/spring steering arm, stabilizer, 4-wd, full time, 373 gear ratio, \$450. Benton, 877-2473.
RAMPE #3 industrial tumbling machine for slide finishing, deburring, polishing, etc., 2 barrels, \$100. Douglas, 281-9504.
CHAIN SAW, Sears 16" self-sharpening w/2 blades, case, fuel can, 2 cycle oil, \$125. Barr, 821-5870.
TRUMPET, almost new Yamaha student model, new price \$349, sell for \$150. Renken, 296-9713.
MAHOGANY desk, 24" x 54",

\$100; bifold closet doors for 4' or 5' opening, \$10/set. Smith, 298-8227.
LADY Kenmore electric clothes dryer, 220V, used, \$40. Volk, 299-1702.
WATERBED, kingsize bookcase, \$150; 3 girls' 3-spd., 1 boys' 3-spd. bicycles, \$25 ea.; 1 boys' 10-spd. bicycle, \$40. Geerts, 296-4066.
FREE to good home, reg. English Setter, trained hunter; commercially manufactured dog kennel, 12 x 12, 3-run capability. Kilgore, 898-5111.
TI 99/4A computer w/program recorder, monitor, 2 cartridges, \$150. Christopher, 299-5712.
FOAM sleeper sofa, full size, earth-tone stripes, \$75. Pawley, 255-8435.
REFRIGERATOR, GE side-by-side, \$300; Sears dryer, \$100; couch/swivel rockers, \$170; trundle beds, \$40; mower, \$75. Logue, 292-1933.
BELL motorcycle helmets, sizes 7 1/4 & 7 3/8, \$20 ea. Marder, 883-3863.
SKI poles, 48" & 52", Look poles, never used, \$16/pr. OBO. Hinkel, 298-8226.
AMATEUR radio equip: Collins S-line, \$550; SB230, \$375; linear & IC 255A 2 meter rig, \$225. Graham, 298-7005.
REFRIGERATOR, Whirlpool, 17.5 cu. ft., top freezer, white, \$200; free kittens. Breckenridge, 291-0039.
SOFAS, Modesta's 7' formal, \$300; Kroehler sofa-sleeper, 7', Herculon, earthtones, straight lines, contemporary, \$300. Sons, 294-3953.
TOOL BOX, heavy-duty snap-on bottom, 7-drawer, \$250. Martinez, 344-8974.
BED-STUDY UNIT, custom made: includes closet, drawers, bookcase, desk, bed in twin-bed floor space, \$300. Burgess, 296-4254.

TRANSPORTATION

'69 COUGAR XR-7 2-dr. sedan, single owner. Hook, 296-6285 after 6.
'74 PLYMOUTH Valiant 4-dr. sedan, new upholstery, 93K miles; P-38 byf 1944 9mm pistol. MacDougall, 884-9711.
'82 HONDA CT 110 motorcycle, less than 600 miles, helmet, \$660. Downs, 255-6524.
'80 16' tri-hull, 90HP Mercury, \$5K. Chavez, 877-2707, 877-3559.
'76 PENTON 400cc dirt bike, \$500; combination motorcycle utility trainer, new, \$350. Wright, 296-3850.
'71 CHEVY pickup, PS, PB, AT, sliding rear window, aux. fuel tanks, AM FM stereo, new tires & battery, \$1400 OBO. Fleming, 265-4277.
'80 YAMAHA XS 400, 4700 miles, windshield, \$1100; '74 Yamaha 100 street, 5-spd., \$300. Ukena, 299-4314.
'77 JEEP pickup, 45K miles, 360 CID, AT, PS, PB, CC, camper shell. Whelan, 294-6016.
'76 CHEVY Scottsdale 1/2 ton truck, shell, new SBR tires, V8, AT, PS, PB, 2-tone, HD, 2 tanks, 61K miles, \$3500 OBO. Stang, 256-7793.
'79 TOYOTA Celica GT liftback, AC,

AM/FM, rear window shade, \$4850. Bisbee, 293-0356.
'80 SUZUKI GS450E, 3500 miles. Cerutti, 292-0186.
'78 HONDA Goldwing, 12K miles, Vetter fairing, bags, crash bars, new radial tires, \$2500. Soto, 823-2134.
'76 MUSTANG II, V6, 4-spd., PB, PS, AC, AM/FM/Cass., tach, full instruments, \$2500. Longfellow, 299-7062.
'81 YAMAHA YS400, 3K miles, \$1000; Kenmore continuous clean stove, \$225. Dotts, 294-8297.
'14' MAHOGANY wooden boat w/fiberglass covering entire hull, trailer, 25HP Sea King motor, \$750 OBO. Marquez, 836-7115.
'78 TOYOTA Corolla, 2-dr., 5-spd., new battery & brakes, \$2200. Bankenship, 821-6592.
'67 VW bug, \$700; Honda Trail 90 bike, \$200. Woodall, 299-6729.
'80 PINTO, AC, PB, AT, 68K miles, \$2500. Kleotka, 821-1466.
'75 CHEVY Monza 2+2, 4-spd., V8, PS, AC, new radials, \$1100. Roth, 265-8186.
'78 FIREBIRD Trans-Am 400, 4-spd., T-tops, AC, \$4300 OBO. Jacobus, 823-2698.
'68 MERCURY Colony Park wgn., loaded, \$500. Irwin, 822-1831.
'83 NISSAN Sentra sport coupe, loaded, low miles, \$7300. Glenn, 296-6850.
'67 CADILLAC Sedan DeVille, white, blue interior, 68K miles, \$1150. Hoke, 298-6619.
'78 KZ650, 13K miles, windjammer, AM/FM, \$1200; '72 Inter. Travelall, AT, 4-wd, AC, \$1200 OBO. Apodaca, 836-5691.
'78 PEUGEOT 504-D, 4-dr. sedan, AC, \$2600, negotiable. Class, 281-3836.
10-SPD. bikes: Nishiki International, 23" frame, \$250; boys' Schwinn, 2" wheels, \$75. Johnson, 898-9226.
'84 PONTIAC Fiero SE, AC, PW, sunroof, Alpine stereo, white, below book, \$11,200. Mertens, 298-1302.
'76 HONDA Civic, 66K miles, 5-spd., AM/FM cassette, 31/42 mpg, radials, \$1200. Gilliland, 884-5752 after 3.
VW, '65 pan w/'64 body, motor cores, transaxles, rims, misc., priced separately or all for \$200. Logue, 292-1933, 293-9523.
'79 PONTIAC Firebird, 6-cyl., stereo, T-top, louvers, one owner, below book, \$4299. Gallegos, 345-7147.
'81 MAZDA GLC Custom L 4-dr., 5-spd., AC, AM/FM cass., sunroof, CC, \$4300 OBO. Rexroth, 293-6025.
TWO Honda 90 trail bikes & trailer. Hardin, 293-5679.
'70 VW bug, rebuilt engine, AM/FM cassette deck, \$1800. Altwies, 292-3884 after 5.
'73 JEEP pickup 4 x 4 quadratrac, AT, PB, PS, AC, 46,500 miles, camper shell, dual tanks, \$2700. Plugge, 821-6127.
'83 HARLEY Davidson XLX 1000, 5300 miles, \$4000. Martinez, 344-8974.
'76 SAAB, 99GLI, A/C, new tires & brakes, \$1600. '82 BMW R100RS, custom extras, 12 K miles, \$4500. Bailey, 268-8079.

REAL ESTATE

SE 3-bdr., lg. lot, full basement, \$60K, has assumable nonescalating 9.5 FHA, \$15K down & will take 11.5 paper. Ganzerla, 296-2101.
2-BDR., NE 3 miles from Sandia, lg. fenced yard, \$14K down w/REC, assume \$34K at 8%, \$320/mo. Mooney, 299-1774.
40 ACRES on SR344, 4 miles east of N14, 1300' frontage, elec. & telephone. Curtis, 281-3519.
NEW 3-bdr. on 1 acre in Belen, \$55K. Sanchez, 864-9297.
GLENWOOD HILLS Sq., new solar 3-bdr., 1900 sq. ft., mt./city views, jacuzzi, 3-car garage, formal DR, under const., \$152K. Carlin, 292-5428.
3-BDR., 12 x 60 Homette MH w/8 x 26 addition, many extras, Wyoming Plaza adult park, \$13,500 OBO. Heine, 293-5496.
2 ACRES in center of Cerro Loop (Los Lunas), irrigation rights, underground utilities, \$14.5K/acre, take \$5K down & finance loan at 10% APR. Sena, 865-7750.
20 ACRES in Cibola Trails development south of Grants, low down, \$1K/acre. Roth, 265-8186.
3-BDR., 1650 sq. ft., \$82,500, assume 9 1/2%, fp in den, 2-car garage, landscaped. Logue, 292-1933, 293-9523.

WANTED

MUSIC, record album "The Singing Ambassador" by Norman Nelson. Sylvester, 298-5196.
APT. cr small house in quiet, safe area, for lady w/dog. Allison, 884-4674.
CHILD's large, red wagon, preferably w/sides & cheap. Mason, 281-3052.
TWO front wheels from bicycle; 26" preferred, mid-size or balloon. Baxter, 344-7601.
HARD disk & controller card for IBM-PC or compatible. Hanson, 296-7141.
TOBOGGAN, 2 or 3-person, to rent for hunting trip; bicycle, inexpensive & old for use in Tech Area. Diegle, 294-5565.
GIRLS' ski apparel (jackets, bibs, mittens, etc.) in good condition, sizes 6-8 & 10-12. Quintenz, 298-3955.
QUEEN SIZE bed & mattress, good condition. MacLnnis, 898-1628.
HOMES for 2 dogs, spayed females w/shots, housebroken, Lab crosses. Logue, 292-1933, 293-9523.
ROOMMATE to share house in Tijeras Canyon, 12 mins. from work, non-smoker. Boslough, 294-3907.

SHARE-A-RIDE

RIDE to Ohio or any state in between, leave Alb. Oct. 20. Vargo, 884-1694.
TWO-MEMBER car pool needs additional riders or will merge with another car pool, vicinity Candelaria & Griegos, 1 block off Rio Grande. Gallegos, 344-3290.

WORK WANTED

LIGHT HAULING jobs, rototilling. Widenhoefer, 298-2510.

Two-for-One Crab Tonight

TONIGHT at Happy Hour snow crab is the dining room feature — two snow crab dinners for \$10.95. In addition, fine steaks, chicken, and even diet hamburger entrees are available. Dining room hours are 6 to 9 p.m. Happy Hour prices (very reasonable) are in effect from 4:30 until 8:30 when the music starts. Western Flyer plays country western music for dancing. Karen Edwards instructs free country western dance lessons from 7:30 until 8:30.

Next Friday, Oct. 5, the Isleta Poor Boys play for dancing while prime rib for \$12.95 is the dining room special. The Poor Boys return on Friday, Oct. 19.

ON MONDAY, Oct. 1, the Club will tune in football on the giant screen and provide free hors d'oeuvres in the main lounge. Stop by with friends to cheer your team. Happy Hour prices will be in effect until closing.

ON WEDNESDAYS during October, the Club will provide free hors d'oeuvres in the main lounge during happy hours — 4:30 to 6:30. Take a mid-week break.

VARIETY NIGHT is scheduled Saturday, Oct. 6, with Walt Disney's classic animated film *Peter Pan* set for viewing. A magic show for children is also booked. Super sandwiches and other goodies kids like will be available at 5; entertainment starts at 6. Admission is free to members and their families.

A TRAVEL PROGRAM on vacation cruises is scheduled Monday, Oct. 8, at 7:30 p.m. in the ballroom. Presented by Trans-Globe Travel, the program includes films on the upcoming "Carla Costa" Caribbean cruise to San Juan, Puerto Rico, Curacao, Caracas, Grenada, Martinique, and St. Thomas. Chet Fornero (ret.) is the speaker.

Time is running out to sign up for the Club-sponsored Mazatlan trip Nov. 13-20. The package costs \$399 and includes air-

fare, transfers, seven nights at the luxurious Playa Mazatlan, a cocktail party, a Fiesta party, and bellman tips.

ANOTHER FAMILY NIGHT is scheduled in the ballroom on Thursday, Oct. 11, with steamship beef topping the buffet spread. Cost is \$5.95 for adults, \$3.25 for children. Other steak and seafood entrees will be available. Entertainment, called the Magic Dance Show, is also scheduled.

CORONADO SKI CLUB plans a busy October. First event is the annual Sandia Peak Walkdown on Sunday, Oct. 7. Ski Club members take a free ride up the chairlift and a pleasant stroll down, clearing the slopes of ski hazards along the way. Burgers and chile await along with assorted free beverages. Non-members who want to join the outing may contact Jerry Letz (7263), 6-0155, for more info.

The CSC dry land ski school is scheduled on Saturday, Oct. 13, at Netherwood Park (at Princeton and Morrow) from 2 to 4 p.m. Instructors are from the Sandia Peak Ski School (they will also furnish equipment) while the CSC furnishes refreshments. This is an informative session for ski beginners. Call Lisa Mondy (1512), 6-1772, for more info.

The CSC general meeting is set for Tuesday, Oct. 16 in the Coronado Club ballroom, starting with attitude adjustment. Taos Ski Valley reps will provide the program, including ski movies, and there will be the usual CSC low, low prices and super door prizes.

An equipment clinic with the word from Brian Gallager on what's best and what's best to avoid in ski equipment is scheduled Thursday, Oct. 18, at 7:30 p.m. in the El Dorado room.

Events Calendar

Sept. 28-30, Oct. 5-7 — Red River, 9th annual Aspencade, information at C of C, 1-754-2366.

Sept. 29-30 — 7th Annual Doll, Miniature & Antique Toy Show, Albuquerque Museum Benefit; Sat. 10 a.m.-6 p.m., Sun. 10 a.m.-5 p.m., Convention Center.

Sept. 29, Oct. 2, 6 — Albuquerque Opera Theatre, "I Pagliacci," and "Gianni Schicchi," 8:15 p.m., KiMo, 243-0591.

Sept. 30 — Corrales Casa Tour, 11-4, \$5, (4 casas & openhouses). Info, 898-2036 or 898-9296.

Sept. 30 — NM Jazz Workshop presents "The Art Ensemble of Chicago," 7:30 p.m., KiMo, 842-6659.

Sept. 30 — Rodey Film Festival, Films by Luis Bunuel, "Diary of a Chambermaid" (1964); Oct. 21 — "Tristana" (1970); Nov. 11 — "The Discreet Charm of the Bourgeoisie" (1972); Dec. 2 — "Phantom

of Liberty" (1974). 7:30 p.m., Rodey Theatre, Fine Arts Center, UNM; 277-4402.

Oct. 5 — Cellist Mstislav Rostropovich in concert with the NM Symphony Orchestra; Andrew Litton, guest conductor; 8:15 p.m., Popejoy.

Oct. 6-14 — Albuquerque International Balloon Fiesta, 883-0932.

Oct. 7 — Movies by Great Directors: "Wages of Fear," Henri Cluzot (1933), 7 p.m., KiMo.

Oct. 7 — Concert: The Municipal Band, 2 p.m., Sculpture Patio, Lecture: "History of Balloons," 3 p.m., Auditorium; Albuquerque Museum.

Oct. 9 — KiMo Showtime: Burl Ives in Concert, 8 p.m., KiMo.

Oct. 10 — NM Museum of Natural History Lecture & Slide Show: "Caves & Cave Minerals," 7 p.m., KiMo.



STATE FAIR WINNERS — Jerry Esch (2631), left, completed a two-year effort to restore his '57 Chevy convertible barely in time to enter the "Cars of the 50s" event at the State Fair. The car took first place and then took another trophy as the judges' choice for "Best of Show." Roger Campbell (2631) took a first place for his '31 Ford roadster, which he restored a number of years ago. As a matter of fact, Roger has entered his car in the State Fair for the past 12 years, has been awarded first place six times.