

Finally! And Fine!

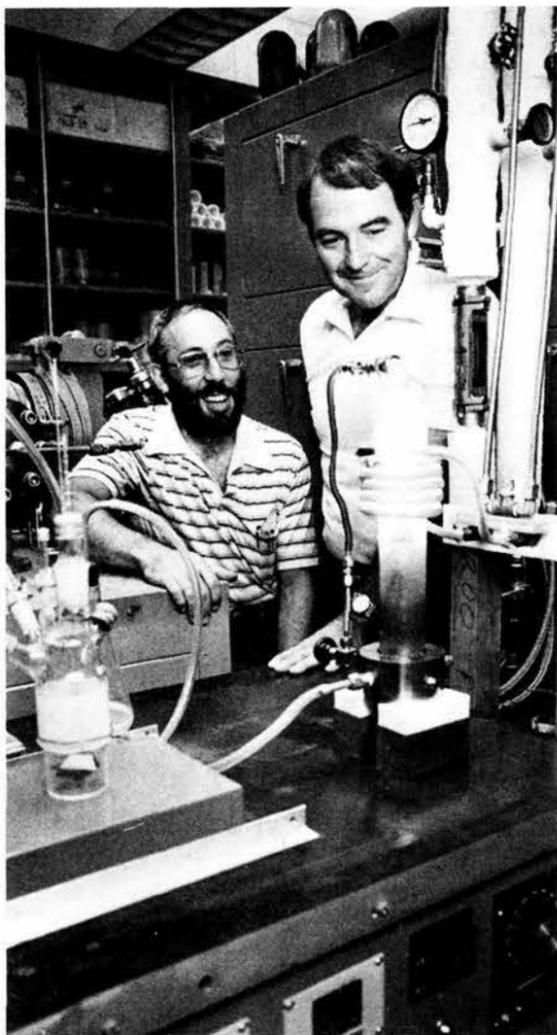
TTC a Showpiece Showplace

For as long as there's been a Sandia, there hasn't been a meeting place on-site that we could use without apology. Until now.

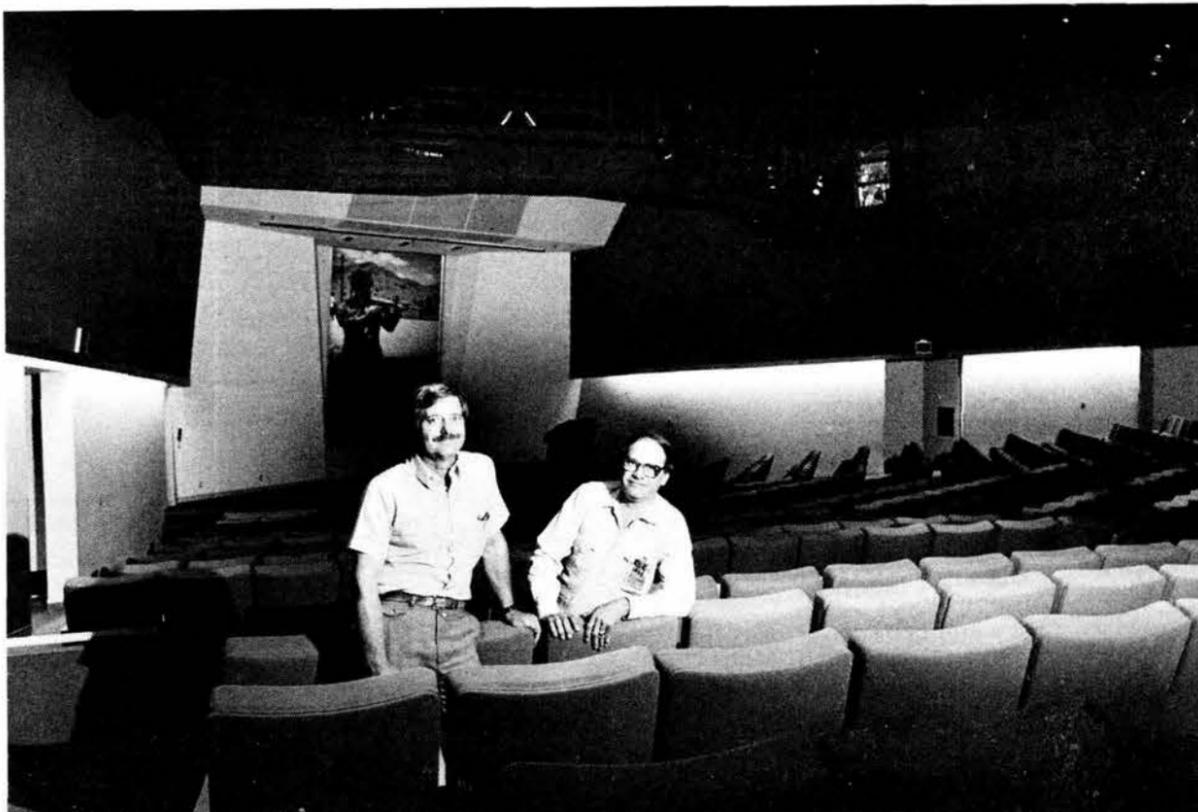
At dedication ceremonies to be held Sept. 10, Sandia's new Technology Transfer Center will officially be ready for use by groups of up to 500. (More information about the dedication will be available later; at this point we know only that Senator Domenici, who strongly supported the funding for the new facility by DOE's Director of Energy Research will attend. DOE Secretary Hodel may attend as well.)

Location of the 14,000-square-foot building, at the south edge of Tech Area I near Bldgs. 821 and 823, means that it's all too near the flight path out of the airport — "at the end of the runway," says Bruce Phillips (3643), Plant Engineering's project leader for the TTC. So several structural features of the new building serve to counteract the occasional take-off noise. The most noticeable is the earth and stone berming on three sides. Less obvious is the "building-within-a-building" construction: with rooms front and back and with exit hallways on the sides, the auditorium portion of the TTC is

(Continued on Page Four)



INVENTORS Dave Ginley, left, and Dick Baughman (both 1154) watch the formation of a thin layer of boron phosphide on a silicon substrate inside a glowing chemical vapor deposition apparatus. At left is an experimental photoelectrochemical cell using a photoanode made from the material. The device was recently patented.



WITH A 10-FOOT REAR PROJECTION SCREEN behind his head, George Skinner relaxes with Ed Sisneros (both 3153) in the auditorium of the new Technology Transfer Center. They and several other Sandians are working hard to prepare the TTC for its dedication by Sen. Domenici on Sept. 10. The facility is now being scheduled for use — call Janet Walerow on 4-6909.



LAB NEWS

VOL. 36 NO. 16

SANDIA NATIONAL LABORATORIES

AUGUST 3, 1984

Patent Awarded

Boron Phosphide Coatings Improve Photoelectrochemical Cells

A new semiconductor device structure invented at Sandia dramatically improves the performance of photoelectrochemical devices. The application of thin, stable, extremely corrosion-resistant boron phosphide layers onto silicon or gallium arsenide substrates of photoelectrochemical cell photoanodes has been awarded a patent assigned to DOE. Inventors are Dick Baughman and Dave Ginley of Solid State Materials Division 1154.

Photoelectrochemical cells use a liquid electrolyte and a photostimulated electrochemical cell analogous to a solid state photovoltaic cell. Photoelectrochemical cells employ semiconductor anodes and/or cathodes to convert sunlight to electrical power or to useful chemical products such as hydrogen from water decomposition or methanol from carbon dioxide reduction. Device efficiencies up to 16 percent for electrical power production have been obtained. The most efficient semiconductors, however, have been plagued by stability problems — dissolution, electrocorrosion, or photocorrosion.

To solve stability problems, the Sandians conceived the idea of employing a thin layer of corrosion-resistant wide bandgap semiconductor material as a protective window for the smaller bandgap unstable semiconductors. Boron phosphide was a logical choice, Dave Ginley says, due to its

"exceptional chemical robustness and suitability for growth on the semiconductors of interest." Boron phosphide is extremely stable, resistant to dissolution in most mineral acid and basic solutions, and corrosion resistant in extreme environments.

"These characteristics make the material very difficult to work with and to apply to desired substrates," Dave continues. "However, we were able to grow thin films of boron phosphide on a wide variety of materials using the resources of Dick Baughman's crystal growing laboratory. The films were grown by chemical vapor deposition techniques using gaseous nutrients of hydrogen, diborane, and phosphine."

The boron phosphide layer improved the stability of silicon photoanodes by factors of more than 30,000. In fact, the current-voltage characteristics of the device showed a continuing improvement with time. No degradation of the boron phosphide was observed throughout extensive testing. Similar results were obtained with gallium arsenide photoanodes.

"The patent recognizes that the feasibility of the 'transparent window' concept has been demonstrated and that the utility of boron phosphide as a corrosion-resistant layer has been spectacularly proved," Dave says. "The process has potential

(Continued on Page Two)

Antojitos

Hot Dogs, Souvenirs, Worthy Causes--Get Yours Here! I quote from a Feedback: "My division has a constant flow of sales. The supervisors are now in the act, and that makes it difficult to say no. Raffle tickets, Avon, items handmade by friends and relatives, Girl Scout cookies--I bought five boxes last year and I hate cookies! When you're alone, \$ are precious. I feel the gift envelopes are enough."

The Feedback was unsigned and therefore can't get the usual director response. Humbly I leap into the breach--a humility that I'm sure will eventually prove to be fully justified. I don't agree with all Sandia policies, but I do think the Code of Conduct item on "Commercial Activity" makes sense. It "discourages" all sales on Sandia premises, and it specifically prohibits sales of food and beverages--those are to be sold only through the vending machines (and the refreshment stand in Bldg. 800 in Albuquerque). So GS cookies, even those delicious chocolate mint ones, are illegal, so to speak. It's OK to sell handcrafted items, says the Code, if they're sold during breaks and if the organization's supervisor doesn't consider the sales disruptive. And there's the rub--we've apparently got a supervisor who fabricates, say, personalized paperclips and is selling them to his/her employees. I think that's taking unfair advantage of employees who naturally feel pressure to buy from the boss.

If I were a director, I'd tell the supervisors that one of their responsibilities is to see that any sales in their divisions are conducted unobtrusively--make sure that the Eye-Allure sits on the corner of the seller's desk, say, and tell the raffle promoters they can circulate a memo telling folks where to buy a ticket. But their primary responsibility would be to see that no one--graded, staff, management, no one--does any desk-to-desk solicitation for any "for sale" item, worthy cause or no.

(A plug here for the Feedback system: I've known Phyllis Wilson, the program's coordinator, for years. Her integrity is exemplary. I believe it would take physical torture to get her to reveal the name of any Feedback questioner who chooses to remain anonymous.)

* * *

Hey, You Nouns, Get Out of the Verb Cages! For me, it began when I realized that I was getting used to being told to deplane after an airplane flight. (That's what you do shortly after you deseat, I think.) Later I worried that I'll someday get equally accustomed to "parenting," though my sense of justice has me convinced that juvenile rights demand that "childing" be equally acceptable. "I childed well, but Dad was a poor parenter," the future former toddler will say. Now I worry about our parent company's "Electronic Messaging System" at the LA Olympics. Oh, sure. "I message; you message; he, she, it messages." "Did you message me?" "I messaged you yesterday. I've been messaging you all night." On the local front (and maybe on the national, for all I know), we now have "career pathing"--as in "I'm pathing my career to be a director in five years," no doubt. Let's hope the usage paths on to its heavenly reward--and soon. A grammatical puritan I ain't. But must we convert all our nouns into verbs? Guess I'll recoffee my cup and do some desking. ●BH

* * *

You can observe a lot just by watching.

--Yogi Berra

Wayne Named Director 8400



Rick Wayne has been named director of Component and Systems Research 8400, effective Aug. 1, succeeding Leo Gutierrez who retired in June.

Rick joined Sandia at Albuquerque in January 1966, working in the Solid State Physics Division. He transferred to Livermore in June 1969 to become supervisor of the Component Physics Division. In 1973 he was named supervisor of the Command and Control Division with responsibility for development of nuclear security systems. His next promotion came in May 1977 when he was named manager of the Solar Central Receiver Department that was, among other tasks, overseeing the technical aspects of the pilot Solar One project at Barstow.

A second Solar Programs Department was created in July 1981 to coordinate the country's solar thermal systems technology program, and Rick transferred to that department. In addition, he also became manager of the Exploratory Systems Department in March 1982, holding the dual jobs for about a year. In Exploratory Systems, the primary activity this past year has been the engineering research connected with strategic defense initiative activities. In the last six months he has also been working with DOE headquarters as the representative from Sandia Livermore on the strategic defense research plan for the DOE.

Some of his other past activities include serving as representative on the Advanced Nuclear Technical Interchange panel for the USAF, the Joint Chiefs of Staff's Stockpile Improvement Study, and the joint working group with the United Kingdom on nuclear security systems.

Rick has a BS degree in physics from Brown University and a PhD in the same field from Cornell University.

He is the father of four sons and resides in Pleasanton. His outside interests are golf, woodworking, skiing, and camping. Memberships include the American Physical Society and IEEE. He is active in St. Augustine's parish and the Oakland Diocese Cursillio movement.

semiconductor for use in detectors operating in hostile environments and for use in electronics operating at high temperatures.

"For such an application," Dave says, "a large program is needed to optimize the electrical properties of a material as a semiconductor. However, we don't need a development program if we wish to use boron phosphide as a thin layer for its corrosion resistance properties. Though the practical use of photoelectrochemical devices is in no way assured, the problems of stability may be surmounted by the techniques we've demonstrated."

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Continued from Page One

Patent Awarded

applications in photoelectrochemical devices, in electrochemistry, and where corrosion resistance with electrical conduction is required. The window concept has potential applications in a number of areas where the photoresponse of a small band-gap device is desired in an environment in which the device would not normally be stable."

The experimental program has also demonstrated the considerable potential of boron phosphide as a corrosion-resistant

Sandians Visit Research Labs In Japan

Dick Claassen (8000) and Dan Hartley (8300) recently visited their professional compatriots in Japan. Their fact-finding tour of Japanese scientific laboratories and technical universities took them to those specializing in combustion research or diagnostics for combustion applications. While in Japan they — along with four other Sandians — also took part in an international conference on materials for fusion reactors.

"The opportunity to see Japan's finest scientific and academic research facilities gave us some new insights into that country's way of doing things," Dan reports. "We even discovered some ideas that could be implemented at the CRF [Combustion Research Facility]."

Dick and Dan were most impressed with the Japanese work ethic, dedication, and enthusiasm, no matter what level of job they hold. "The guards at the gates of the laboratories run to the cars with badges as visitors approach," says Dan. "And the other employees don't do anything slowly either — they hustle all the time never wasting a moment."

Dan also noted that the employees at each facility also seemed to take part in more athletic and team sports activities than their American counterparts, an observation befitting the director of the group that won SNLL's recent Directorate Challenge.

In Japan, many of the large companies hire people for a lifetime. The employer doesn't fire anyone without serious cause, and the employee is expected to remain and not move around among competing industries. "If you leave, it is usually in disgrace, and to change employers means starting at the bottom all over again," he said.

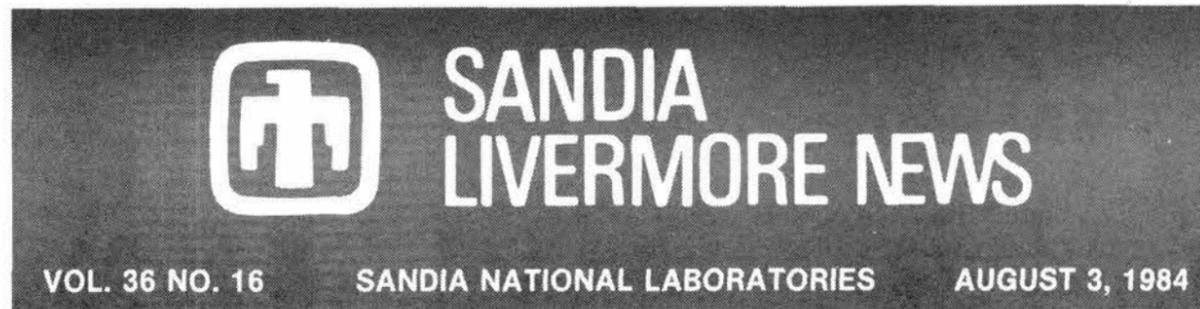
Because of that "lifetime employment" policy, Japanese industries and government have closer control over their work force, shifting people to other tasks if they aren't performing satisfactorily on their original assignment.

And when Nippon Steel, during a modernization and automation program, reduced its 60,000 employees by 10,000, it created a totally new industry and transferred its excess employees there to retrain, rather than laying people off as US companies do.

In Japanese R&D, Dan and Dick found counterparts to many Sandians — people doing research comparable to that being done throughout the CRF — but not necessarily all in one location. For example, Tokyo University's Institute for Solid State Physics has a program to develop advanced designs for Excimer and YAG lasers, and Hitachi is concentrating on some advanced coal gasification and combustion experiments.

Nippon Steel proved to be a most interesting stop because it is carrying on extensive research in areas only remotely related to its steel production mission — electronic, robotics, artificial intelligence, and semiconductors, for example.

Nippon is progressive in another way,



too. The company sends 30 selected members of its professional staff overseas each year to study subjects or conduct research of their choice. This experience is considered a necessary part of each staff member's career development. US private industry would most likely view such year-long visits as boondoggles.

Dick and Dan's visits to universities and industries completely filled each day. They would be driven from the hotel to the facility, meet with the head of the lab or research center, go into a conference room for a detailed overview (in English), take a one-to-two hour tour of the labs, then return to the meeting room to hear technical presentations from several staff members. In most cases, Dick and Dan were asked to deliver an overview of Sandia's activities with emphasis on the combustion programs.

It was not unusual for the meetings to run past 6 or 7 p.m. "Staff members there never leave work until the company top management leaves," Dan commented. "So many don't go home until 8 or 9 on weeknights." And they work a six-day week!

Dick and Dan shared with their hosts the American perception that the Japanese seek out technical expertise and then pirate it — "an impression the Japanese officials want to dispel," Dan says. "Our hosts carefully pointed out that they were more than willing to discuss even their most recent research results, although their auto industry seemed to be most concerned

about proprietary issues — an attitude similar to that of US auto companies."

Officials at nearly every lab they visited expressed a desire to exchange scientists. "I think an exchange would be a valuable experience for a researcher from Sandia, but it would take someone who could adjust to their cultural and language differences," Dan says.

During the second week of the trip, Dick and Dan were joined by Walter Bauer (8340), Mike Baskes (8341), Art Pontau, and Wen Hsu (both 8347). The six attended a fusion conference at Nagoya's Plasma Physics Institute. The sessions dealt with developing materials that can withstand plasma interactions in a fusion reactor. Mike, Art, and Wen delivered papers at the conference, and Walter was named the conference summarizer.

Congratulations

Tim Eklund (8463) and Joanie Ridgwell, married in Oakland, July 14.

Sympathy

To Jim Workman (8257) on the death of his mother in Irondale, Ohio, July 12.

HANG TWO



"A President ought to be allowed to hang two men every year without giving any reason or explanation," [said Herbert Hoover]. When asked if that would be enough, he added, "Perhaps not, but I could get word to 20 or 30 people that they were being considered for the honor."

from the Herbert Hoover Presidential Library, quoted in *Forbes*



WITH PRESENTATION of a ceremonial key, Dick Claassen (8000) transferred possession of this ambulance/fire rescue vehicle to LLNL. Under a mutual aid pact between the labs, LLNL maintains and operates the \$48,000 vehicle and responds to medical and fire emergencies at Sandia. The new unit has strobe warning lights and 16 emergency radio frequencies. The rear compartment houses a self-contained oxygen system, a full complement of emergency medical supplies, and standard rescue and extraction equipment. The ceremony involved (from left) LLNL Fire Chief John Sharry, Associate Director Jack Kahn, and Dick.

Showpiece Showplace

virtually isolated from the outside world. Not obvious at all is the roof: it's composed of three layers with two of them hung from springs to isolate them from vibrations.

Sightlines in the hall are excellent, seats are custom-designed and very comfortable (both to the eye and to the posterior); 60 of them have fold-away writing arms. Acoustics should be superb as well.

The hall is dominated by a speaker-dwarfing 10 x 10-foot rear projection (RP) screen, the most apparent of the TTC's audio-visual features. Located at the rear of the stage, this screen — which receives images from the video projector in the rear projection booth — can display video tape in any of three formats (VHS, Beta, and 3/4-inch U-Matic) and movies or slides via video.

Complementing the video capabilities are two screens for movies, vu-graphs, and slides projected from the front projection booth: one is 10 feet across and covers the RP screen when lowered into place (this screen plus the screen-like walls on either side of it permit multi-media shows); the second screen is even larger — about 26 feet across — for true Sandiascope.

A 10-foot-wide liquid writing board below the RP screen allows an impoverished lecturer who has no audiovisuals to create some on the spot.

From the point of view of any lecturer, the TTC should be most attractive. In addition to all the media capabilities mentioned, lecturers can control lighting, screens, and slides from the lectern. The lectern itself works in any of three locations on the stage. And there's a "show unit" with a joystick that allows speakers to point electronically at their own slides contained on floppy disks prepared by their personal computers and generated by the video system. (For those lecturers who want assistance with their presentations, all lectern controls can be run by a host in the front row of seats, by the control room, and by both front and rear projection booths.)

Two catwalks 20 feet above the audience contain the house lights and the stage spotlights. The spots provide plenty of light for presentations to be videotaped, by Sandia or by visiting TV media. In the former case, an operator in the control room can remotely control the two videotape cameras fixed to the forward catwalk and focused on the stage. And when the time comes for questions from the audience, eight mikes, lowered from the catwalks, permit questions to be included on the videotapes of a presentation.

The large lobby will house more-or-less permanent exhibits of five of Sandia's many technologies successfully transferred to industry: the laminar-flow clean room, the vertical-axis wind turbine (VAWT), the hot-air solder leveler, the insulin delivery system (artificial pancreas), and TA-23 glass. The clean room is an active scale model: smoke floods the room, then is cleared away with a laminar flow system.

Some Reactions to the TTC

"We're most pleased to have this very useful and well-designed building — especially in these days of increased concern over transferring technologies to the public sector. We have every right to be proud of our record to date, but the TTC will allow us to enhance our record in the future."

— George Dacey, President
Sandia National Laboratories

"I'm delighted we now have a place where what we've shown in the past to be the most productive method of technology transfer — meetings that afford face-to-face contact, for example — can be done in an appropriate environment, one far removed from a converted WWII barracks."

The TTC will be a definite help to our program."

— Bob Stromberg (400)
Tech Transfer Officer

"It may sound a bit immodest, but, since we have the most impressive technology transfer record of all the DOE labs, I'm happy to tout the new TTC. It's true, of course, that we're closer than many other labs to the commercial manufacturing process, but that's not the only reason for our success in the past — we also learned early on the value of developing informal, rather than only formal, contracts with prospective users of new technologies. So I expect our new facility to help us succeed at even higher levels in the future."

— Charlie Winter, Director
Management Staff 400

"In spite of the relatively small number of Sandians who attend the average colloquium, we're looking forward to using the TTC for colloquia, at least on a trial basis. If the arrangement works as beautifully as we expect it to, we'll make it a permanent site for future colloquia."

— Crawford MacCallum (1231)
Colloquia Coordinator

An actual section of a VAWT blade extrusion is the centerpiece of that exhibit. Most of the others include photos and other graphics as well as Polarmotion, a kind of animation produced with polarized light.

A free-form sculpture, a multiple cube structure of neon and chrome tubing, will include photos relating to other technologies (microelectronics, for example) that have been transferred to industry.

The lobby also has a 25-inch TV monitor to accommodate any overflow crowds, a small serving area for refreshments during break times, and five phones. A conference room that seats 20 or so is just off the lobby.

Many Sandians have been involved in making the TTC Sandia's showpiece showplace — in fact, some of them are working feverishly at the moment to be ready for the Sept. 10 dedication. Among these are Joe Laval of Community Relations 3163 and Ted Baggett of Tech Art 3155, who conceived and designed the exhibits, and Andy Landis (3163), who built them — "with lots of good support from the machine, pattern, plastics, sheet metal, and wood shops," reports Joe.

George Skinner had primary Sandia responsibility for the audio-visual systems; he was assisted by Ed Sisneros and Jud Blickley (all of them in Motion Picture-Video Services 3153).

On the Facilities Engineering side, Bruce Phillips was mechanical engineer as well as project leader. Mark Ralph (3643) was electrical engineer; Bill Hendrick (3643) was architectural and structural engineer; Bob Sharp (3664) was architect for interior design, landscape, and building siting. Basic design, begun in August 1981 and completed in September 1982, came out of Mike DeWitte's division (3643).

Construction contractor was K.L. House Construction Co. Architect-engineer was

Stevens, Mallory, Pearl and Campbell; the AE used three consultants — Allison Engineering for mechanical, Uhl and Lopez for electrical, and Boner & Associates for acoustical and audiovisual.

Total design and construction costs amounted to \$2.1 million.

TTC: Directions For Use

Community Relations 3163 is now accepting requests to schedule the Technology Transfer Center. In addition to regular Labs activities, priority use will include Sandia-sponsored meetings, meetings of organizations in which Sandians have a specific interest (hold membership, office, etc.), and meetings sponsored by others in which Sandians have an interest in the subject matter. Call Janet Walerow on 4-6909 for scheduling information.

If you're part of a group interested in holding meetings in the TTC, but you need some orientation on its audio-visual features, call — at the moment — George Skinner on 4-6907. But note that George is soon getting some relief (in both senses) — a fulltime coordinator of audio-visual services for the TTC (as well as for the Bldg. 815 auditorium) will be available to answer questions and provide guidance in using the facility. The *Weekly Bulletin* will carry the coordinator's name and phone number as soon as a selection is made.



WAYNE CYRUS (7473-5) and WAYNE VINE (7473-4)

Supervisory Appointments

WAYNE VINE to supervisor of Welding Section 7473-4, effective July 6.

Wayne joined the Labs in December 1966 as a welder in the advanced manufacturing development group. During his career at the Labs, Wayne has continued to work in the welding field, progressing to microjoining with the metallurgy organization and, for the past five years, with the development shops.

He received an associate degree in EE from DeVry Institute of Technology. Wayne enjoys fishing, bird hunting, and photography. He lives in NE Albuquerque.

WAYNE CYRUS to supervisor of Pattern, Foundry and Heat Treat Section 7473-5, effective July 6.

Joining Sandia in 1952 as a lab clerk, Wayne moved into drafting where he worked for 10 years. He was with engineering communications and later with the R&D shops working on composite materials. For the past 10 years, he served his current organization as a metallurgical and process engineer.

With the help of Sandia's Educational Aids Program, Wayne earned his BS in mathematics from the U of A and an MS in engineering and materials science from UNM. He is a member of ASM and SAMPE. He enjoys camping, hunting, and fishing. Wayne and his wife Shirley have twin daughters; the family lives in the NE heights.

ALLEN CAMP to supervisor of Reactor Systems safety Analysis Division 6412, effective July 16.

Allen joined Sandia in September 1977 in the Nuclear Security Systems Directorate



ALLEN CAMP (6412)

where he worked on safeguard systems designs. In 1980, Allen transferred to a reactor safety division where he investigated hydrogen combustion in reactor safety. Since last January, he's been with Severe Accident Containment Response Division 6427.

He received his BS and MS in nuclear engineering from the University of Missouri at Rolla, and his PhD in nuclear engineering from UNM; the work for his PhD was completed under Sandia's University Part-Time Program. Allen is a member of the American Nuclear Society. He enjoys jogging and photography. He and his wife Sherry have two children and live in the NE heights.

Events Calendar

- Aug. 3-4 - The NM Art League Art Show, 11:30 a.m.-5 p.m. Fri., 10 a.m.-5 p.m. Sat., Crossroads Mall, downtown.
- Aug. 4 - Annual Santo Domingo Feast Day: more than 500 dancers, corn dance; Santo Domingo Pueblo, 1-465-2240.
- Aug. 4 - "This is Our Song: Musical Review," 8 p.m., KiMo.
- Aug. 4-5 - Collector's Showcase, Agriculture Bldg., State Fairgrounds, 265-1791 or 883-6986.
- Aug. 9-10 - Annual San Lorenzo Feast Day: sunset dance, foot races, ceremonial pole climb, corn dance; Laguna (243-7616) and Picuris (1-587-2519) Pueblos.
- Aug. 9-12 - 63rd Intertribal Ceremonial: more than 50 Indian tribes from the U.S. and Mexico; parades, dances, rodeos, arts and crafts, food; Red Rock State Park (near Gallup), 1-863-3896.
- Aug. 10-19 - Aztec Dancers and Los Voladores, traditional Aztec dances, snake and fire dance; evenings, Pueblo Indian Museum, 843-7270.
- Aug. 10-11, 17-19 - "The Underground Midsummer Night's Dream," Shakespeare's comedy adapted to a 1950s science-fiction motif set in Albuquerque "Underground" style; 8 p.m., *2 p.m., KiMo.
- Aug. 11-12 - Master Gardener Plant Fair, 9 a.m.-4:30 p.m. Sat., 12 noon-4:30 p.m. Sun., Albuquerque Garden Center, 243-1386.
- Aug. 12 - Annual Santa Clara Feast Day: corn, harvest, buffalo or Comanche dances; Santa Clara Pueblo, 1-753-7326.
- Aug. 15 - NM Museum of Natural History Education Series: "The World of Plants," lecture and slide show by Paul Kemp, curator of botany, NMMNH; 7 p.m., admission by donation, KiMo.
- Aug. 15 - Feast Days of San Antonio and Our Lady of the Assumption: corn dance, Zia Pueblo, 243-5944.
- Aug. 16-19 - Bernalillo County 4-H Fair and Rodeo: youth hall and livestock exhibits, horse show and 4-H rodeo; 8 a.m.-midnight, State Fairgrounds, 243-1386.
- Aug. 17-19 - Ninth Annual Telluride Jazz Festival: saxophonist Richie Cole is official host of Telluride Jazz '84; jazz concerts, dance performances, street fair of artisans, workshops, seminars, historical jazz films; more info from P.O. Box 397, Telluride, Colo., 81435; (303) 728-3556.
- Aug. 17-19, 24-26, 31-Sept. 1 - Albuquerque Civic Light Opera Assn., "South Pacific," 8:15 p.m. Fri. & Sat., 2:15 p.m. Sun.; Popejoy, 345-6577.

Medical Corner

Habits Can Be Broken

"For a Change: Breaking Old Habits and Making New Ones," a 25-minute film, will be shown Aug. 8 in Bldg. 815 (outside the Tech Area) at 12 noon. The film outlines a method for making permanent behavior change. This method works for losing weight, quitting smoking, learning to exercise regularly, or changing any aspect of your behavior to improve your health.

ALL world*

For years after World War II, the United States was in effect the only industrialized country in the world — most of the world eagerly bought what we had to sell. One result is that our foreign customers had to learn English and adapt to American cultural peculiarities.

But the world changed dramatically in the 70s and 80s. We are now competing with the Japanese, Germans, French, and Koreans for world markets, which means that Americans need to learn more about working in a multinational and multicultural environment. And Sandians are also affected: increasingly our people meet and work with foreign scientists, engineers, and politicians, both here and overseas. So it is essential that Sandians have some idea of the ways in which cultural differences may affect the transfer of information.

This was the message of Robert Moran, professor of International Studies and Director of the Program in Cross-Cultural Communication at the American Graduate School of International Management in Glendale, Ariz.

Some of the gaffes that Moran went on to describe are obvious, others less so. For instance there was Jimmy Carter's now classic remark about "Montezuma's revenge" at an official function in Mexico. Then there was a company that undertook a feasibility study costing hundreds of thousands of dollars to see whether they could sell their cake mix in Japan. The study showed that the Japanese certainly do eat cake, but the product couldn't be marketed in Japan because only three to five percent of the homes have ovens — something that anyone familiar with Japan would have known.

And the "Made in America" symbol showing a hand in the "A-OK" gesture. What the folks who designed this logo didn't know — and neglected to check — was that in many countries this is an obscene gesture; in others it simply has no significance. (Incidentally, Moran is writing a book on indecent gestures around the world: gestures should be obscene and not heard.)

Moran said that 8 percent of international projects fail because of technical inadequacy, 15 percent because of personal/family adjustment problems and lack of satisfaction, and 77 percent because of intercultural interaction and language difficulties — in other words, because the people involved fail to develop high international competence.

U.S. management philosophy, which we export to foreign countries, is based on a relationship of equality between the employee and the manager; in some cultures employees simply do not go in and tell the boss what they think should be done — they ask their boss what the latter wants them to do.

Most Americans also feel that conflict

Triathlon — Albuquerque Parks and Recreation is sponsoring a triathlon Aug. 19. The event includes a 10-mile run from Sandia High School to the Rio Grande High School swimming pool, a 16-mile bike ride, which concludes at the swimming pool, and a 250-meter swim. The winner is the entrant with the shortest elapsed time from the start of the run to the conclusion of the swim race. Registration is at the Civic Auditorium, 600 Elm NE, 8 a.m. to 5 p.m., July 30 to Aug. 18. Mail-in registration deadline is Aug. 10. The fee is \$5. For more information, call Parks and Recreation, 766-4761.

* * *

Running — Runners sometimes feel as if they're sweating blood, but these runners will have to make a real donation of blood to participate in the United Blood Services' Fourth Annual Blood Donor 5-Mile Classic Saturday, Sept. 8 at 8:30 a.m. Starting point is at the UNM Medical School parking lot at Yale and Tucker. The course winds through residential areas north of UNM and the UNM North Golf Course. Runners can enter by donating a pint of blood at any United Blood Services blood drive in August or by donating at the UBS main center, 1515 University Blvd. NE, Monday through Friday between 10 a.m. and 6 p.m. All runners must be pre-registered.

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Golf — SGA reports the following Sandians returned from the recent Los Alamos Mountain Classic with honors: James Lucas (1832) and Michael Cieslak (1833), A Flight; Gary Schuster (2123) and James Schwank (2141), B Flight; Galen Puls (5121) and Robert Parks (7612), C Flight; and Brian Finley (7223) and Allen Dale (7622), D Flight.

The SGA Open, played July 15 and 16 at Arroyo Del Oso and Paradise Hills, counts among its two-day survivors John Stang (5232) and Ronald Rodeman (7543), 1st Flight; James Lucas (1832) and James Schwank (2141), 2nd Flight; and Emery Chavez (155) and Rand Rozelle (7657), 3rd Flight.

The next SGA tournament, a two-man, best ball event, is scheduled Aug. 17 in Santa Fe at the Country Club. Contact Kevin Linker (6227) for more information.

* * *

Horseshoes — The 25th annual tournament of the Sandia Horseshoe Association is scheduled Saturday, Aug. 11, at 6 p.m. on the Los Altos horseshoe courts. Open to all Sandians, DOEans, retirees, spouses, and dependents, the event features free refreshments and no entry fee. To sign up, call tournament chairman Tom Towne (7535), 898-2700, or Wayne Sly (7654), 299-3141.

(i.e., competition) is useful in a work situation. Saudis, on the other hand, feel that conflict is to be avoided. This difference in attitude can cause problems in a multicultural work setting. Another difference is that Saudis feel that the boss should have all the answers — and if he (always he) doesn't, then he should bluff it so he can retain his employees' respect.

Moran addressed the myth, largely manufactured in the U.S., that American women can't function well in a culture in which women are generally maintained in more traditional roles. "It is okay to send a woman to Japan, Latin America, or the Middle East, even though women in those countries are treated differently," says Moran. "Men in other countries are skillful — they can instantly tell the difference between an American woman and one of their own. The exception is Saudi Arabia where it is difficult for American women, or any foreign women, to even get a visa."

Moran showed a film of a negotiating session between American and Japanese businessmen in Japan (using actors). Some of the most common mistakes that Americans make are:

- Americans like to get on a first-name basis right away. This is a no-no in Japan (and most other countries).
- An aggressive negotiating style strikes the Japanese as insincere.
- Nonverbal communication is important to the Japanese; Americans are almost totally verbal. Therefore, there are likely to be long and, to the Americans, awkward silences among the Japanese. This creates tension and distrust.
- Americans should not rely on the

Japanese team's interpreter. They should bring their own and thoroughly brief him or her on all technical details. Making one interpreter work for both sides creates pressure and causes translation errors. Also, Americans tend to talk too rapidly and too long and to use colloquial terms like "ballpark figure" with which the interpreter might be unfamiliar.

• If the Americans wish to entertain their Japanese counterparts, the entire team should be included, not just one or two people. Business should never be discussed during a social function. And know what you're eating; if you don't like sashimi (raw fish), don't order it.

Summing up, Moran emphasizes that "responsibility is reciprocal" for effective intercultural communication.



Patricio Lerma (3612)

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AS A SURGERY HOSTESS at Presbyterian Hospital, Marian Goddard is a link between patient and family. She tries to make the waiting easier by providing information about the patient, listening to worried family members, or simply serving them a cup of coffee.



BERNICE SANDERS gives meaning to "tender loving care" as a volunteer in Pediatrics at Presbyterian Hospital.

Helping the Hospital

Feeling Great by Feeling Needed

Writing about the work of volunteers, both on-roll and retired Sandians, has always been a welcome assignment to the LAB NEWS staff. A common theme emerges from these interviews: "I may be helping others but the real benefit is to myself." These people who give their time and talent to someone in need invariably express their gratitude for what they receive in return. And they all encourage others to find a volunteer situation that will provide such satisfaction.

* * *

Marian Goddard and Bernice Sanders, both retired Sandians, are members of the Hospital Auxiliary at Presbyterian Hospital.

Marian joined the group following a hospital confinement. "I saw the volunteers at work and decided it was something I wanted to do. It's an opportunity to do something for someone else." Marian became a volunteer in January 1983. She contributes two days a week (about 11 hours) as a surgery hostess and a member of the total care program. Her duties include escort service for patients to and from different departments. As a surgery hostess, she keeps family members informed about the progress of the patient.

"It helps to be a good listener," Marian explains. "Letting someone who is worried talk seems to alleviate some of the anxiety. The contact with so many different people is good for me. I've had many wonderful experiences with people here. It's a good feeling to know that you have helped someone, but, believe me, I've received much more than I've given. I look forward to Mondays and Tuesdays, my hospital days."

* * *

Bernice was familiar with the hospital volunteer work through a friend. She retired in December 1982 and joined the pediatrics volunteers at Presbyterian the following February. She works about four hours a day, three days a week.

"There's always a need for someone to help with the children," Bernice says. "My favorite assignment is to work with the tiny ones. The nurses have a theory that babies need to be loved and cuddled, and there's nothing I'd rather do. When the children start to recover, say in the age 5 to 10 group, it's so hard on them to be confined to their rooms. We have a wonderfully equipped playroom for them. We can even take them outside on occasion." To everyone on the pediatrics ward, Bernice is known as "the baby lady" because of her devotion to the infants.

"My first day as a volunteer couldn't have been better. A baby, about eight months old, had to be restrained in his crib because of an I.V. When I arrived, the nurse asked me if I could hold and comfort the child so that he could rest. When I picked him up, he tucked his head down on the shoulder of this complete stranger, relaxed, and went to sleep. I held him and rocked him throughout the afternoon; it was an emotional experience to know that the child was suffering less because of me.

"I can't really express what this work does for me. Working with the children is just delightful, the most enjoyable thing I've ever done."



Here are a couple of current volunteer opportunities for employees, retirees, and family members. If you would like more information, call Karen Shane (4-3268).

CIVIL AIR PATROL needs light-aircraft pilots to fly search and rescue missions throughout New Mexico.

VOLUNTEERS FOR THE OUTDOORS is sponsoring Pecos Trail Days Aug. 11-19. Workers are needed to improve trails (during the week) and camp sites (on the weekends).

Congratulations

Stan (5324) and Nancy Dutler, a son, Nicholas Allen, July 16.

Leonard (6241) and Patricia Duda, an adopted son, Andrew Thomas.

Margaret (6000) and Robert (6321) Sandoval, a son, Aaron Phillip, July 19.

Diana and Billy Carlen (7253), a daughter, Margaret Elizabeth, July 15.

Quin San Hamel (4000) and Jane Weber married June 9 in Chicago.



BELL'S SYSTEM — Frank Bell (ret.) enjoys sailing but not the hassles too often attendant thereupon. He solved the problem by joining a San Diego sailing club, where he and Nancy pose with some of the private and club-owned boats.



ABOARD a Catalina 27 rented from the club, the Bells and the Shunnys sailed the San Diego Bay. They also did some sailing along the Pacific coast nearby.

Unusual Vacation

Sailing Without Hassle

by John Shunny (Ret.)

It's been accurately noted that boat owners and junkies have much in common: they both support habits that call for frequent fixes and an outlandish outlay of money. A boat, whether power or sail, is a cantankerous object whose only fealty would seem to be Murphy's Law. Still, it does occasionally offer those moments when sun, wind, and water blend to produce a magic that makes the effort worthwhile.

We enjoyed some of those moments on a recent sailing vacation in San Diego, where sailors have a pleasant choice, to sail either in the bay — large and calm — or upon the ocean — also large but not so calm. We sailed upon both waters with our hosts, Frank and Nancy Bell, in a 27-foot Catalina. Frank, also a retired Sandian, was skipper and, during our sails, explained his different approach to the business of getting to go sailing.

The Bells sail three or four times a year in San Diego and are members of a sailing club, one of many in the area. Their club is typical, with an inventory of some 20 boats ranging from 21- to 39-footers. After you pay an initiation fee (\$150) plus a refundable security deposit (\$150), you may participate in the club's program of free sailing lessons, check-outs in the various boats, and seamanship courses. If you're a novice, you usually start with a smaller boat, then progress up to the 27- and 30-footers and, if you wish, up to the largest, the 39-footer — a lot of boat.

There is, of course, an additional charge for the boat usage itself. For example, the 21-footer costs \$32 per day (24 hours) while the Catalina 27 we sailed on is \$60. Club members pay a minimum of \$300 per year toward boat usage. How much sailing you actually get in for \$300 depends upon the size of the boat, and a rate schedule with different rates for half-day, full day, and weekly rentals. And weekday charges are less than those on weekends. Sounds complicated, but in practice it isn't, and the various options permit you to plan and budget with flexibility.

You might observe that this arrangement is the same as chartering a boat and

paying a membership fee besides, but there is a difference. Charter fees are typically twice those that sailing club members pay, and there are no free sailing lessons.

Suppose two couples or a family with children took the Catalina 27 for, say, five days. They could do one-day sails, as we did, on the bay and ocean, going out in the morning and returning in late afternoon. The more ambitious could sail up the coast, pulling in for the night at Oceanside, Dana Point, or Newport. The Catalina 27 is supposed to hold six, but my eye says four; it has a galley, head, and dining area; living in it would be about like living in a camper or small trailer. Of course, most of your time is spent on deck, so your bouts with claustrophobia are of short duration.

If you return to the sailing club's slip each evening, you're not confined to the boat and have access to the pool, restrooms, and shower facilities. At \$60 per day, your five days would run \$300. Of course, you do have to get to San Diego, some 850 miles. We flew — \$128 round trip per person.

If you're new to sailing, you may need some perspective on these costs. New sailboats with sails and an auxiliary engine run

around \$1000 per foot. Then there are licensing and registration fees, insurance, and marina rental; if you haul the boat out of the water, you won't have marina rental but boat trailers run to a few thousand (and then you have the fun of rigging and derigging). And maintenance.

Many New Mexico sailors never leave the state and contentedly trailer their small sailboats to Cochiti or Heron lakes. They have fun. But sailing is like skiing — after a season or two on the modest slopes of your local area, you pine for some *real* skiing at a resort like Aspen or Alta. Sailors aspire to blue water sailing, and our nearest blue water is San Diego.

On our final day of sailing, small craft warnings had been posted. The winds dropped by noon, though they were still strong. We elected to go out and had an exhilarating afternoon, heeling over and dipping the gunwale, enjoying the view and the nautical scene. This is what sailing is all about. Our sailing ended on a satisfying note too: Frank brought the boat into the slip, we tied her up, then dropped off the keys at the office. And that was that.



ON THE RUNWAY at Tonopah Test Range, Dan Tebbs (7171), right, is congratulated on being the 100,000th passenger on Sandia's DC-9 shuttle from Las Vegas to the Range. Fred Drennan (Ross Aviation), resident DC-9 pilot, does the honors. The aircraft flies four days a week from Las Vegas, where the 50 Sandians of Tonopah Test Range Department reside, to the Range some 250 miles north where they put in a 10-hour day before flying back to Las Vegas. The shuttle airplane was an F-27 in 1969 when the flights started. Ten years later in December of '79, the DC-9 took over the flights.

Women's Career Conference Set Aug. 23

The Sandia Women's Program Committee will sponsor a career conference for non-represented women (i.e., department managers, supervisors, MTS's, MLS's and TSA's, executive secretaries, nurses, and MLS-trainees) on Aug. 23, from 8 a.m. to 4:30 p.m., at the Albuquerque Convention Center.

"This is the first conference like this ever held at Sandia, and its success will determine if we'll have such conferences in the future," says Yolanda Padilla-Vigil (3511), Women's Program Coordinator. "We hope to include women in different job categories in future conferences."

The purpose of the conference is twofold. "The program will focus on developing skills to increase a woman's satisfaction, contribution, and realization of potential," says Yolanda. "It will also promote long-term success of Sandia through effective use of human resources."

President Dacey will deliver the welcoming address, and Mari-Luci Jaramillo will be the keynote speaker at the luncheon. Jaramillo, who is currently associate dean of the College of Education at UNM, served as American ambassador to Honduras during the Carter administration.

Conferees can attend a panel discussion, "Women and Management and Supervision at Sandia," in either the morning or afternoon sessions. The panelists will address such issues as choosing and working with mentors, planning career paths, and developing management style.

Morning session panelists include Danny Brown (3140), Kay Hays (1831), Dr. Judy Ewing (3330), and Sandy Borgrink (3163). Afternoon panelists are Ruth Whan (1820), Dody Hoffman (3431), Alice Morgan (4020), and Doris Miller (7543).

Sandians leading workshops, which are repeated in both morning and afternoon sessions, are Mary Fallon (3523), "The Power of Positive Thinking"; Maureen Baca (3511), "The Mentor Partnership"; and Wilma Salisbury (3523), "Countering Communication Barriers."

Beth Moise, counselor and organizational behavior specialist, will lead the workshop "Women and Stress." She has conducted workshops on such subjects as personal growth, communication skills, and women in the workplace.

Carolina Girimonte, human resource consultant, will lead the workshop "Images of the Professional Woman." She has 16 years of background training and consulting in interpersonal communication and has conducted workshops throughout the US, Canada, Norway, and Sweden.

Yolanda emphasizes that attendance at the workshops is on a first-come, first-served basis, and she asks that those planning to attend return registration forms to her no later than Aug. 10.

"We have the full support of management," Yolanda says. "If it goes well, we hope we'll have another next year."



GOING TO THE DOGS — No, that's not safety engineer Margaret Carroll (3442) running her finger through a radial arm saw. She's demonstrating the use of a safety device, a kerf splitter and anti-kickback dog, to Goodwill employee Ramon Padilla.

Goodwill Safer, Wiser

When Don Dalton, operations manager of Goodwill Industries in Albuquerque, got orders from his superiors to conform to OSHA regulations, he didn't even know what those regulations were. Looking for a safety manager, Don eventually found VIA administrator Karen Shane (3163), who located several Sandians who were willing—and able—to give Goodwill the needed help.

Safety engineers Margaret Carroll (3442) and Allen Fine (3441), together with fire protection engineer Dennis Kirson (3662) and Margaret's husband Bill, safety manager at UNM, helped Goodwill organize its safety program.

Margaret first called OSHA, which lent the Goodwill people a slide-tape presentation and sent all the free information they could use. Then the group spent a Saturday morning last January at the Goodwill plant on San Mateo.

"We went through their entire operation, looking at every piece of equipment, furniture—everything," Margaret says. "Their wiring system needed help, for ex-

ample. It was overloaded and not up to code. The worst part was that they had no idea they had a problem.

"But we came away with really good feeling," she continues. "We'd accomplished something worthwhile—a basis for their own safety program. It's been nice to see it evolve."

At the group's suggestion, Goodwill checked its accident records and found that the drivers had most of the safety problems. UNM agreed to let the drivers come to their classes on defensive driving, and now all have been through the course.

"Goodwill took every suggestion we made seriously. They were eager to see what should be done," Margaret says. "And it was a learning experience for us, too. Al Fine had never done a fire inspection, so he learned a lot.

"Also, it was good to have four of us because we could split up into areas of our expertise," Margaret continues. "Goodwill was surprised, I think, about how much we could help."

And now Don Dalton knows all about OSHA regulations.



SUMMER SANDIANS — Six New Mexico high school teachers are spending a profitable summer working and learning at Sandia. They include (seated) Maxine Koester (3523), Del Norte; Sharon Ball (3162), Valley; (standing) Sidney Sanchez (3523), Valley; Marie Risberg (6222), Logan, and Roy Hammit (6228), Sandia. (Not pictured is William Schrandt, 6241, Albuquerque.) Maxine, Sharon, and Sidney were placed through the Career Guidance Institute (sponsored by Albuquerque Public Schools and the Chamber of Commerce), which helps APS teachers and students find temporary work in the private sector. Marie, Roy, and William were placed through the Science and Math Teachers' Summer Program, which was originated by Sen. Domenici and President Dacey. It has placed 24 teachers with 11 different employers in Albuquerque, Las Cruces, Socorro, and Carlsbad.

Take Note

The Masterchorale of Albuquerque will hold auditions for all voice parts for the 1984-85 season on Aug. 18 and 25 from 1-5 p.m. at St. Thomas of Canterbury Church, 425 University NE. Performances for this season will include concerts on Nov. 11 and April 14, and the Fifth Annual Madrigal Yuletide Feaste. For more information and audition time, please contact Edwina Beard, 821-0309 or Nina Hobbs, 883-0833.

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"Life in the Pueblo During the Changing Seasons" is the theme of an exhibit by Jemez Pueblo artist Jose Rey Toledo. The show opens Aug. 5 with a reception for the artist from 1 to 4 p.m. in the Pueblo Gallery of the Indian Pueblo Cultural Center, 2401 Twelfth St. NW.

Toledo (father of Mary Tang, 3533) works in oil and watercolor. His mural, "The Turtle Rain Dance," is one of the large paintings in the IPCC patio. The exhibit and sale of his work will run through Labor Day.

* * *

The Friends of the Indian Pueblo Cultural Center are selling raffle tickets for a black pottery wedding vase by potter Mary Cain of Santa Clara Pueblo. The vase is on display at the Friends' desk in the Pueblo Indian Museum at the IPCC. Raffle tickets are \$1 each and may be purchased at the Friends' desk. The drawing for the vase will be Sept. 7; ticket holders need not be present to win.

* * *

The 1985 Joint ASME/ASCE Applied Mechanics Conference will be held at UNM on June 24-26. This conference is also sponsored by Sandia and Los Alamos National Labs. If you would like to help out with the logistics for this conference, please contact Gilbert Benavides (2543), 4-6308.

* * *

Interested in becoming a museum educator? Join the Maxwell Museum's volunteer docent program and learn to teach children about anthropology. The eight-week training course begins Aug. 20; registration closes Aug. 17. For more information, call Jennifer Martinez or Bernadette Cotten at Maxwell Museum, 277-2924.

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The South 14 Bookstand — In the *Guide to the Fishes of New Mexico* by William Koster (UNM Press), the author identifies 85 species to be found in our state. These are the families represented: sturgeon, gar, eel, catfish, salmon, characin, herring, sucker, minnow, killifish, perch, bass, sunfish, sculpin, stickleback, and waterdog. The author notes that the last-named is not a fish, though it is sometimes the stimulus for an excited inquiry about a "catfish with legs." The book is designed to give anglers accurate knowledge of their prey — its shape, size, coloration, distribution, habits, uses, edibility, and relationship to other fish. You can pick up your copy at the LAB NEWS office in Bldg. 814 for \$3.

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Last issue we noted that the turbo-generator used in the Livermore-Albuquerque Molten Salt Electric Experiment at the CRTF came from a submarine, the *USS Norfolk*. Well, that's what the Navy



WIDE OPEN SPACES are all that remain of the parking lot east of Bldg. 814. Six mobile office complexes accommodating about 40 employees each will occupy the area during extensive remodeling and modernization of Bldgs. 836 and 802. Employees in these buildings will use the mobile offices as "turn around" areas while renovation of their former quarters is underway. The Bldg. 836 project will require about three years to complete; Bldg. 802, first occupied in 1951, will require about four years. Plan to drive to work next in 1988.

said it was. But it turns out that, although the current ship of that name is a submarine, the original *Norfolk* was a destroyer. It was decommissioned in 1973. Our apologies to Navy buffs everywhere.

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Some months ago someone told us that Stan Mullan (3618) had been an aide to Gen. Patton during WWII. Looked like a good story. But Stan assures us that he has never met the man. Did we get our people mixed

up? If you are, or know someone who is, the person we're seeking, please call the LAB NEWS. Until then, the story is Patton-pending.

* * *

Lee Garner (3151) will be among the exhibiting artists at the upcoming "Homes of the World" show at the State Fairgrounds Aug. 10-12. Lee will show his "Statements in Wood" sculpture/wall hangings work. The exhibit hours are noon until 8 p.m.

ECP Dollars To Help

United Way Adds Two New Agencies

Two additional local human service programs — All Faiths Receiving Home and Transitional Living Services — have become member agencies of the United Way of Greater Albuquerque. UW's total membership is now 39 affiliated agencies. Contributions to ECP will help support these agencies.

* * *

Since 1956 All Faiths Receiving Home has provided emergency residential care for non-delinquent children who would otherwise be sent to detention homes or jails. All Faiths takes in children referred by protective agencies — the police, the courts, the NM Human Services Department — because of family crisis, abuse, neglect, abandonment, or other difficulties. The Home is licensed to shelter up to 38 children; approximately 500 children are cared for each year.

All Faiths makes every effort to provide a home-like environment with security, nurturing, and love. It arranges medical and dental check-ups for each child, provides tutoring for each school-age child, and enters pre-schoolers in specific programs to address any apparent developmental problem. In addition, individual programs deal with behavioral and emotional difficulties. Prevention of child abuse is the goal of two outreach programs sponsored by All Faiths

— The Parent Aide Program and Parents Anonymous.

* * *

Transitional Living Services, formerly Little Haven, was founded in 1978 as an alternative to hospitalization for persons recovering from mental illness disabilities. TLS provides a comprehensive program of residential, social, and pre-vocational services to assist residents through the transition from hospital to community.

The TLS program covers: Independent Living Skills — nutrition and food preparation, housekeeping skills, clothing care, health rules and hygiene; Community Living — consumer skills, buying, banking, knowledge of the community resources, bus systems, libraries, employment agencies, and social and mental health agencies; Work Adjustment Training — work skills, work habits, learning to complete forms and applications, and referrals to appropriate programs; Leisure Time Resources — physical activities, use of community resources, encouragement of hobby and craft skills; and Individualized Support — counseling, goal planning, and art and music therapy.

The help and care received at TLS give residents the opportunity to develop the social and independent living skills that allow them to establish semi-independent or even independent living situations.

feed **back**

Q. What effect will the AT&T salary structure freeze, as announced in the July 11 Weekly Bulletin, have on Sandia?

A. Sandia's contract calls for the operation of the Laboratories in the general pattern of AT&T Technologies and AT&T Bell Labs. Over many years this has permitted Sandia to maintain an industrial salary pattern in accordance with the normal practices of AT&T Technologies and Bell Labs. This practice has allowed Sandia to establish a salary structure that compares very favorably with other government laboratories. AT&T, especially in these times of increasing competition, will need to pay competitive wages for its technical work force and will most likely continue to be an appropriate model for Sandia to follow.

As stated in the Bulletin, the Oct. 1, 1984 increases at Sandia are currently being determined and are expected to be within the pattern established prior to AT&T's freeze action. The AT&T freeze, as announced, applies only to non-represented employees and only to salary structure (and not to benefits). The impact, if any, on future wages cannot be predicted at this time. Sandia will continue to strive for a fair and competitive salary structure, using AT&T comparisons where appropriate.

G.C. Dacey - 1

Q. We have been reminded often that we cannot use personal vehicles for travel to other technical areas and expect to be reimbursed for the expense. So I have been using the Remote Areas Taxi to reach Area III. Usually, someone has offered a ride back to Area I so that I have not, until yesterday (5/30), ever had to rely on the taxi for the return trip. Yesterday I did not have a return ride and waited at the Area III gate for the 3:30 taxi. It never came. About 3:45 a kind soul gave me a ride back to Area I. The meeting I attended in Area III actually lasted about 1½ hours. A round trip in my own car would have added another 20 minutes. With the longer travel time taken by the taxi in getting there and this foul-up in taxi service in trying to return, I spent more than three hours instead of the less than two hours actually needed. My hourly salary far exceeds the cost of a round trip mileage compensation if I had used my own vehicle. Are we really saving money with the current approach?

A. The preferred mode of travel between tech areas is by taxi or government car. However, the current issue of SLI 4600, Employee Travel (dated May 22, 1984) provides for reimbursement for use of a personal vehicle between tech areas in special circumstances. The use of a personal vehicle is discouraged when other modes of transportation are available.

The Transportation Division received no notice of a break in service to Area III on May 30. They indicated that had they been notified, they would have made sure a pickup was made. In the future, should such

a problem occur, call the Transportation Division at 4-8048 or 6-0342.

P.M. Stanford - 100

Q. The last time that unit values were reported for SPSE, SSP and VCP was in the 3/29/84 issue of the Weekly Bulletin. The values quoted were those for 1/31/84. Corrections to the 1/31/84 values for the Diversified Telephone Portfolio only were reported in the 5/3/84 Bulletin.

In the past, unit values of all investment directions were reported in the first Bulletin published after the end of the month following the one for which the values were being reported.

Why are the unit values of these funds not reported more frequently and currently as they were in the past?

A. The AT&T divestiture process and the restructuring of savings plans have caused interim delays in calculating and reporting the end-of-the-month unit values for the savings plans. AT&T will return to its once-a-month reporting schedule as soon as possible.

J.R. Garcia-3500

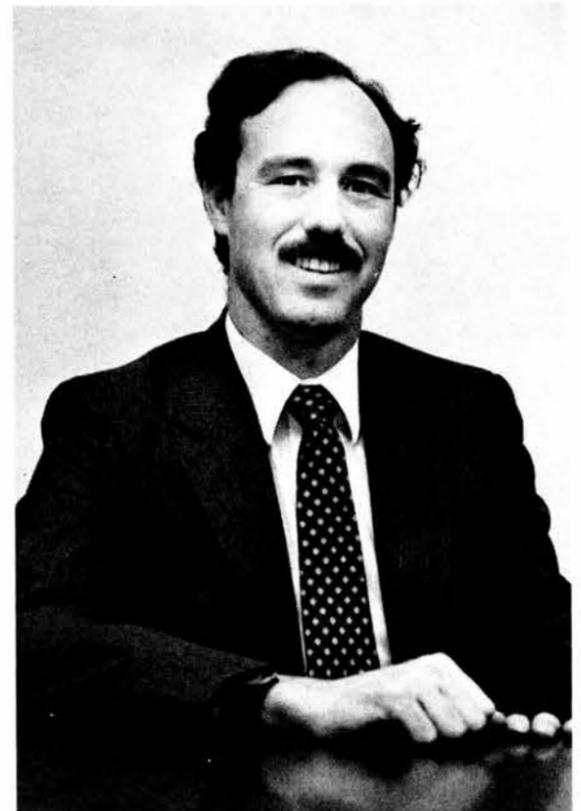
Q. Technicians throughout Sandia would like to know why the employment designation title change for technicians occurred. At the time we accepted employment with Sandia National Laboratories, we were informed that we would be referred to as Engineering and Science Assistants. Now we are to be called Technical Aides. Many of us held positions as aides while enrolled in college. We do not feel comfortable with the title of Technical Aide, and we are very disappointed with this change. The title Technical Aide does not adequately describe the level of competency and responsibility that is required for our positions. We feel that this title change is demoralizing and demoralizing.

We would like to know what technicians with the same level of education employed in similar positions in other laboratories throughout the United States are called.

A. "Technician" is the broad generic designation applied to those employees who furnish technical support to professional engineers and scientists. Particular title choices for technicians are generally made by each company to conform to a pattern of position titles. Titles such as Aide, Assistant, Associate, or Technician are frequently used. It is felt they have the same connotation in meaning and that no one type of technician is universally perceived as having higher prestige or status.

The classification title of "Technical Aide" for the advanced Sandia technician was implemented to evidence job differentiation with Sandia's lower assistant (SAT) level and higher associate level (TSA) positions. The new classification preserves the salary relationships within the technical support field and facilitates position salary comparisons outside the company.

J.R. Garcia-3500



ATTORNEY BOB PARK is the newest addition to the Organization 4000 Legal staff. He's been an attorney with AT&T Technologies, Inc., in New York City for 10 years. This is Bob's first visit to the Southwest — "It rains a lot less here than in New York," he says. He added that his hobby in the East had been sailing and that he and his family would probably develop some new interests. Sand sailing, perhaps?

Q. I was informed some time ago that Sandians staying at hotels should request corporate rates rather than ask for government rates. Although we are funded primarily by the DOE and other agencies, Sandia is still a contractor with the government and that does not qualify us to use the usually lower government rate.

Now I see in Travel News that Howard Johnson's has a new lower "government" rate, and it appears that Sandians are being encouraged to request that rate. How about clarifying which rates we are to request when traveling?

A. In making reservations with hotels and motels, SATO routinely requests the "corporate" discount unless an agreement has already been established to permit us to use a "government" rate. Howard Johnson's representatives tell us that because of the volume of our business, we are now given their "government" rate, an improvement over their corporate schedule. The Marriott chain also offers us their "government" rates. Others offer only their corporate rate, allowing their lower price just to specific government employees.

If SATO has not made your arrangements and you have to make your own, you might identify your company and ask if the "government" rate applies; if not, then request the corporate discount.

R.R. Russell — 3700

Sympathy

To Florenio Baldonado (3423) on the death of his father-in-law in Albuquerque, July 14.

To Joe Rivard (6420) on the death of his son in Albuquerque, July 24.

To Lowell Jones (311) on the death of his father in Chicago, July 18.



WORKING ON his 383rd cassette player, Jim Meikle (ret.) gives the "innards" a thorough going over. Jim says that most of his work for Talking Books involves cleaning the machines.

Meikle Finally Gets to Handle the Hardware

Like many retirees, Jim Meikle keeps busy with many projects, but his favorite is repairing cassette recorders for the visually handicapped.

Jim works with the Albuquerque chapter of Telephone Pioneers of America, who coordinate the pick up, delivery, and repair of cassette and record players for people participating in the Library of Congress's Talking Books program.

Talking Books (in either record or cassette form) and cassette or record players are available free to the visually handicapped — as well as other qualified handicapped people — throughout the United States. The program here is handled through the New Mexico State Library for the Blind and Physically Handicapped.

Enter Jim Meikle — through a side door, actually. The Telephone Pioneers of America is a service organization for the former Bell System. Its members come from Bell operating companies and AT&T. Jim isn't eligible to become a member, but he has a neighbor who is. Knowing Jim's interest in electronics, his friend asked if he'd be willing to help with the repair of cassette players — temporarily, of course.

That was over two years and 380 repair jobs ago, and no one is looking for a replacement for him.

"I enjoy the job," he says. "I was hired at Sandia as a supervisor in 1949. I'd been trained in electronics in the Army. Now I saw all this hardware, but I could never get my hands on it. I had to be satisfied with repairing things for friends."

Now he has enough hands-on experience to keep him more than satisfied. "Cleaning is a big part of the job," Jim says. "You'd be amazed at what I find in those players — coffee and pancake syrup, for example."

The visually handicapped whom Jim serves appreciate his efforts, and so does Lela Marks, who coordinates the Pioneers' volunteer efforts. "Several people do the repair work," she says, "but Jim does such



Bow Coup

Two Elk, Two Records

Growing up on a farm in Minnesota, Ron Madsen (5234) has been hunting all his life, but it wasn't until 1980 that he became interested in bowhunting, specifically bowhunting elk and turkeys.

"I loved hunting elk with a rifle," he says, "but the seasons became too restrictive. You'd apply for a license, then hope your name would be drawn. Bowhunters can go out every season, but the percentages aren't so good. When I finally got something with a bow, I got so hooked on the sport that now I'm exclusively a bowhunter."

He hunts Yellowstone elk in New Mexico and is quite successful — qualitatively if not quantitatively: he's bagged only two elk since he started bowhunting, but both are record setters. The two trophies will be listed in the coming edition of Pope and Young Club's *Bowhunting Big Game Records of North America*. The Pope and Young Club is an organization founded to record big game of all sorts. To determine record elk sizes, officials measure the antlers. They then award points, not only for size, but also for symmetry. Top point-getters are listed in the current edition of their biennial book.

Ron carries a special elk-calling device. "To attract an elk," he says, "you bugle like a male elk. He thinks his territory is being invaded, and he comes to check. It

a thorough job — he's so good at it — that we don't need many others. I would guess that he spends at least 500 hours in a year's time, and that's a conservative estimate. He's been a lifesaver for us."

[Lela says that about 500 people in Albuquerque use the service. In order to be eligible, a person must produce a doctor's certificate stating that he or she is legally blind or is otherwise handicapped and homebound. If you know someone qualified, call Jerry Wise, 1-800-432-5515.]



RON MADSEN (5234) poses with the first elk he bagged as a bowhunter, a record setter. Hunting alone, Ron uses a tripod and self timer on his camera. Above, he talks turkey. Heavily camouflaged, he calls them in with a special diaphragm device he wears inside his lips to minimize lip movement.

makes your hair stand on end the first time you hear it — kind of a cross between a bellow and a howl, sort of like a mad bull."

Bowhunting can be monotonous, too, according to Ron. "I've stood in one place as long as two days and haven't gotten a thing."

He dresses in camouflage clothing, complete with face mask. Camouflage is important, especially in turkey hunting, his other bowhunting speciality. He even uses a calling device, which is a diaphragm that fits inside his lips so a turkey can't see his mouth move through the camouflage mask. He says that one old timer cautions, "You can move your eyes, but only if you squint."

His camouflage and staying perfectly still work — and not only with turkeys. Ron says that one time he was perched in a tree, and a hawk landed on the branch right next to him, not three feet away. Another time when he was leaning across a log, a chipmunk ran right across his arm.

"It was great," Ron says. "Breaks the monotony."

Ron's also an accomplished amateur photographer. High above the timberline on a Colorado mountain, he took a photo of a ptarmigan, a quail-sized bird usually found only in Alaska.

He's an author, too — the May 1984 issue of *Bowhunter* magazine carries his article about his turkey-hunting exploits.

MANAGEMENT BY OBTRUSIVENESS



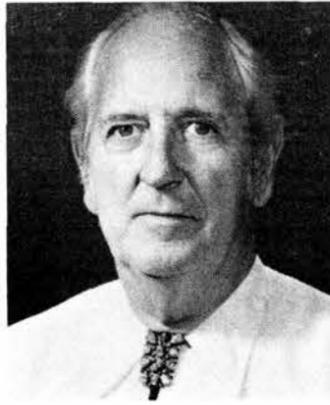
The resistance opposed to him by the tribunals inflamed him to fury. He reviled his Chancellor. He kicked the shins of his Judges. He did not, it is true, intend to act unjustly. He firmly believed that he was doing right and defending the cause of the poor against the wealthy. Yet this well-meant meddling probably did far more harm than all the explosions of his evil passions during the whole of his long reign. We could make shift to live under a debauchee or a tyrant; but to be ruled by a busybody is more than human nature can bear.

Thomas Babington Macaulay
in an essay on the life of
Frederick the Great of Prussia.

MILEPOSTS

LAB NEWS

AUGUST 1984



Morgan Kramm (5230) 30



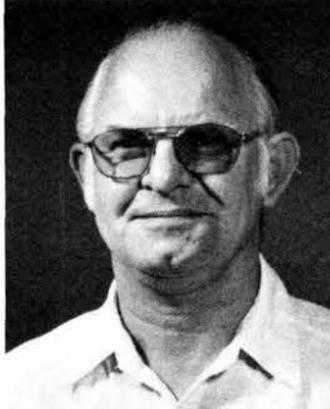
Duane Arlowe (5261) 25



Bob Klett (6334) 25



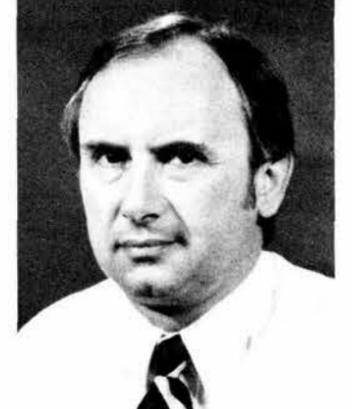
Frank Arellano (6422) 20



Neal Nelson (2336) 25



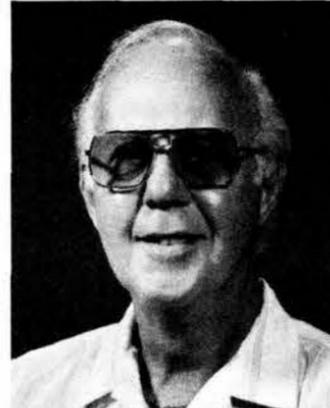
Eddie Garcia (7542) 25



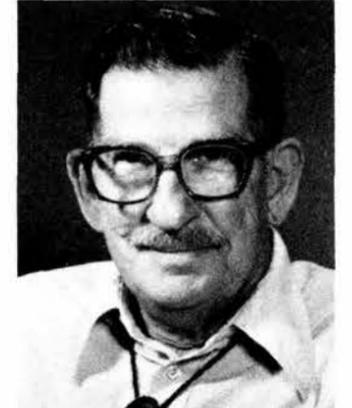
James Renken (2320) 20



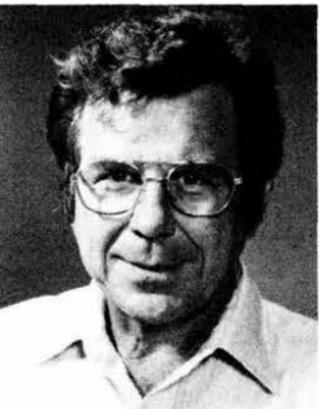
Jackie Pfanner (2335) 10



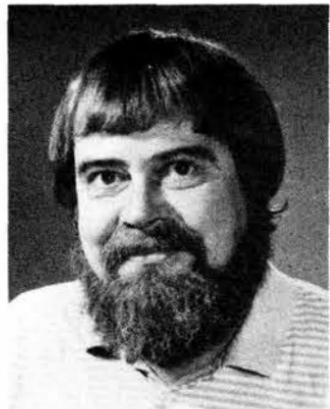
Warren Schaefer (2560) 30



Walter Howerton (7546) 35



Jack Mortley (7521) 25



Wally Newman (2561) 25



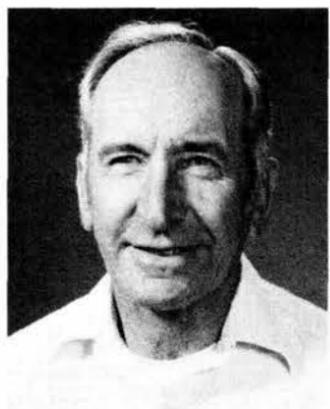
Keith Matzen (1273) 10



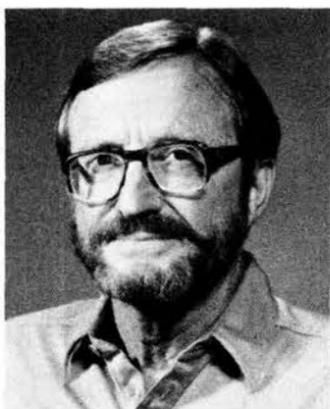
Fedelino Edwell (3618) 25



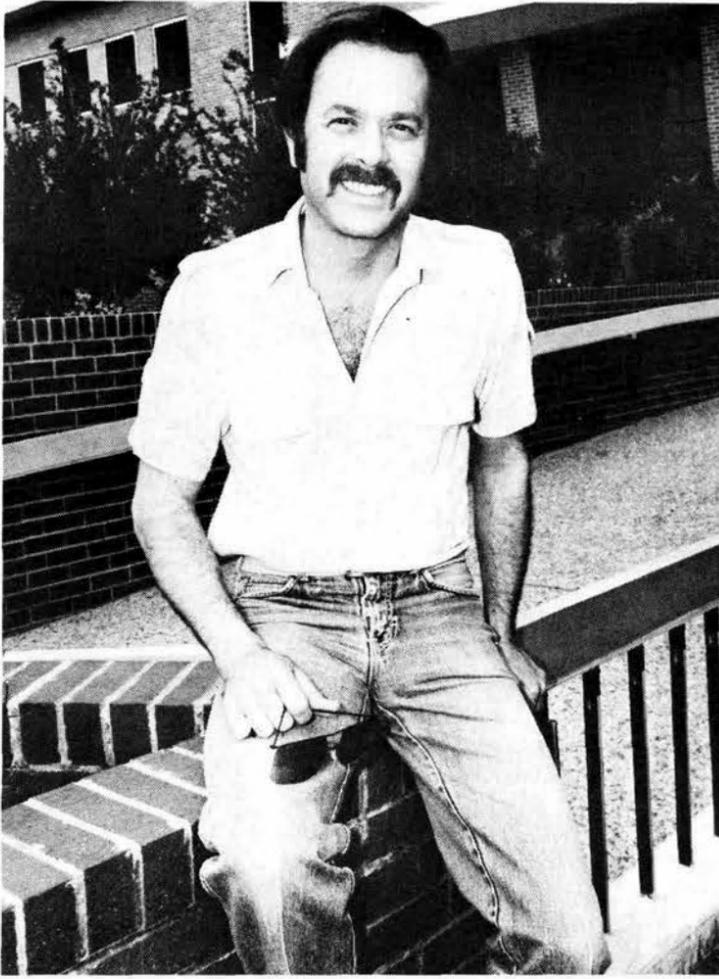
Bob Walko (2526) 10



Fenner Jones (7137) 30

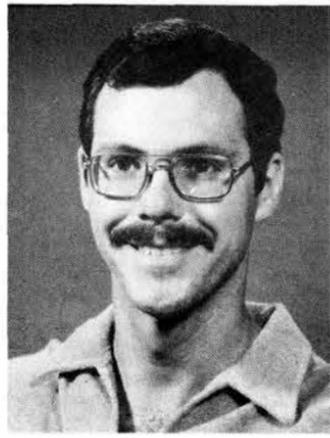


Chuck Williams (2344) 30

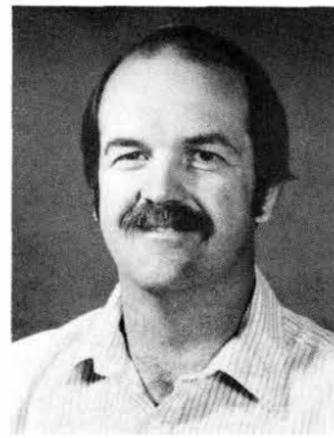


Richard Chavez (1141)

15



Charles Greenholt (1841) 15



Mark McAllaster (1822) 15



Dave Nichols (7658) 10

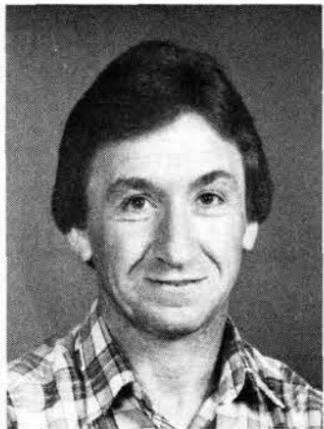


Lucy Armijo (3141) 10



Jim Anastasio (2314)

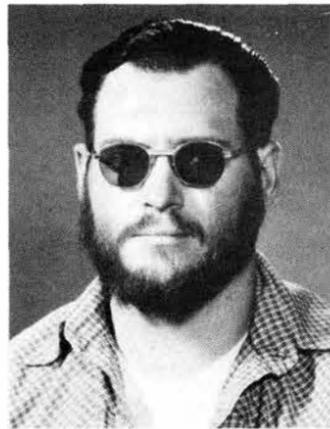
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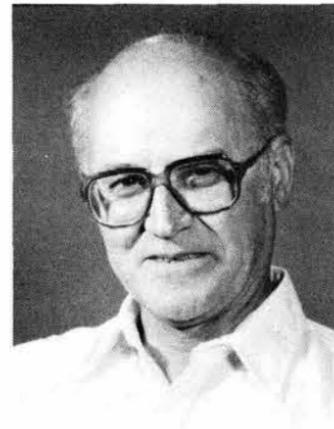
Tommie Bryant (8251) 25



Ted Dellin (2146) 15



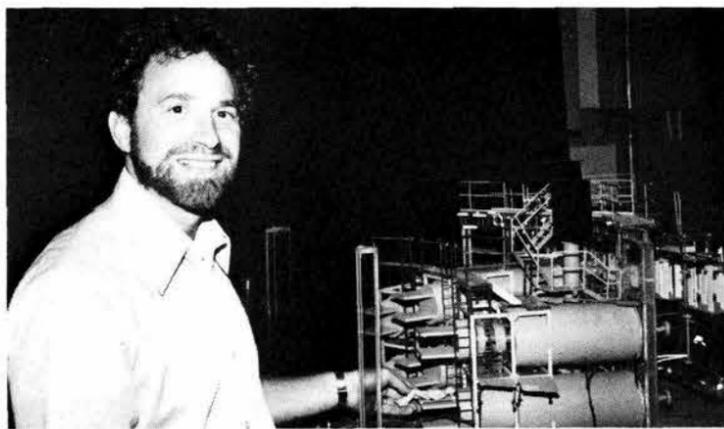
Martin Armijo (3423) 10



Ray Alls (2341) 30

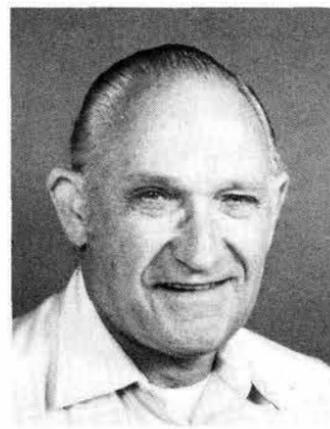


Melton Rushing (7633) 30

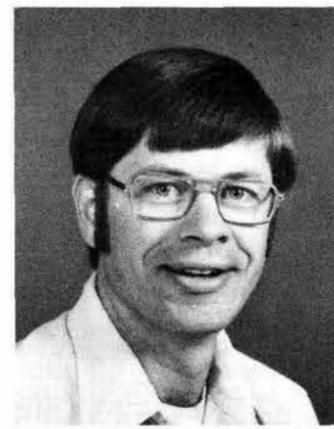


Steve Goldstein (1254)

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Dan Daniel (8463) 25



Daniel Folk (8343) 20



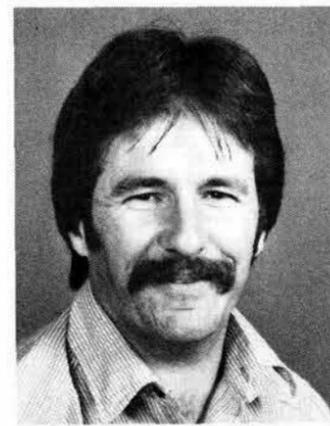
Frances Morris (3000A) 20



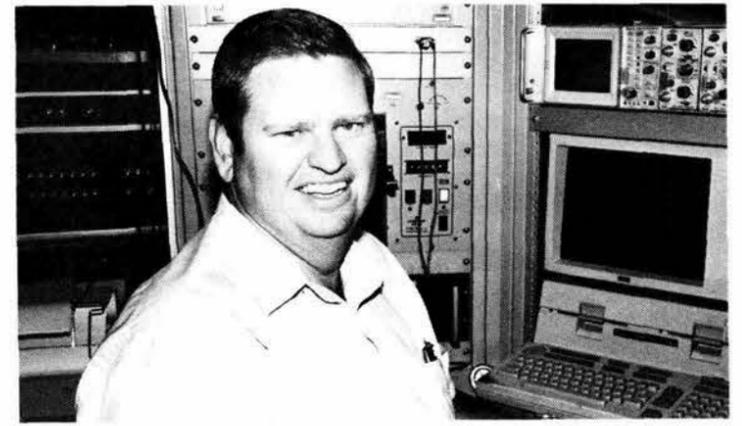
Marlyn Diaz (8250) 10



Stan Spray (7232) 30



John Hachman (8312) 10



John Kirkland (5144)

15

Sandia National Laboratories

Women's Career Conference

For Non-represented Female Employees

Convention Center, Aug. 23, 8 a.m.-4:30 p.m.

Return Registration Forms by Aug. 10. Questions? Call 4-9342

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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

- KODAK Disc 6000 camera, \$35. Caton, 294-4490.
- LADIES Bagboy golfcart, \$15; golfbag, \$10; 8mm Keystone camera, projector & screen, make offer; many other items. Chandler, 296-3323.
- OFFICE DESK, 30"x60", 1/4" glass top, with 40" secretary ell., secretary chair, \$175. 9730 Haines, NE. May, 299-5548.
- TI-994A Computer Plus, 3 cartridge software packages & cassette interface cable, \$90 OBO. Anderson, after 5, 881-0934.
- KING size bed, King-O-Pedic, insul quilted, duo flex, extra firm, \$100. Clendenin, 299-2071.
- VECTOR research, AM/FM stereo receiver, 25 watts/channel, ECI "Profile 400" 3-way speakers, walnut finish, \$275. Blankenship, 821-6592.
- SPALDING "Cannon" metal head driver, boron graphite shaft, cost \$95, sell for \$70. Zownir, 256-3753.
- CRIB & mattress; high chair; potty chair; cloth diapers; clothes, size 10-12; assorted fabrics; humidifier; typewriter. Chang, after 5:30, 242-1546.
- HEATHKIT CRT tester & rejuvenator, model IT-5230, complete w/all cables & manual, \$75. Roody, 299-6084.
- SEWING machine, Husqvarna Viking, model 6020, recently serviced, 90 day warranty. Flesner, 265-2136.
- COLEMAN cooler, 88 quart, \$30; Coleman double mantle, white gas lantern, \$10; Bell helmet, size 7, \$25. Prior, 296-2930.
- 82 GALLON electric water heater, \$30. Romero, 293-8611.
- APARTMENT size kitchen dinette w/ leaf & 4 chairs, \$80. Gleichner, 294-8777 after 5.
- 12 GALLON compressed air tank, valves, gauges, oiler, \$50. Worrell, 299-0381.
- CANNON AE-1 program camera, 2.0 28mm wide-angle lens, A2 power winder, action case, never used, \$525. Sharp, 293-1824.
- OLD small Southbend lathe & Bridgeport mill, both \$2500. Tobyas, after 7, 877-0354.
- STANDARD poodle puppies, AKC registered, champion sired, born 7/4/84, first shots. Baca, 294-5249.
- PING-PONG table, net & paddles, table folds for storage, \$40. Perrine, 293-1429.
- STORM DOORS, Sears best, white, 32 x 80 & 36 x 80, pre-hung, \$125 & \$170; exercise bike, Montgomery Ward, \$60. Kohut, 884-1405.
- SOLAR pool cover, 15' x 30', never used, \$50; water skis, new, \$65. Carlyon, 299-2318.
- LA-Z-BOY recliner rocker, burnt orange, \$175. Dunlap, 884-0232.
- SEARS HOT TUB, \$1500 firm. O'Neill, 892-6754.
- WEIMARANER puppies, AKC bred for excellence in both field & show, as well as companion dogs, whelped 6/30/84. Robinson, 865-7787.
- FORMICA table, 36 x 60, white w/ tan and grey, four chairs, flowered pattern, vinyl, \$50. Hansche, 255-2878.
- HONDA 90 trailbike; upright piano; 1981 Starcraft 12ft. aluminum boat; HO gauge train board; double strength display case, glass. Ross, 296-9794.
- FREE pony w/ purchase of \$100 of riding equipment, registered 1/2 Arabian gelding, \$1200; 14 cu. ft. refrigerator, \$250. Walker, 281-9587.
- GARAGE SALE: 8/5/84, 13' canoe; paddles; jackets; weed eater; bullworker; tools; inner tubes; sofa bed, A-Airbase storage, 301 Wyoming #178. Gonzales, 292-2969.
- TWO REGISTERED English Setters, female, \$50 each. Kilgore, 898-5111.
- BACKPACK, Wilderness Experience, never used, cost \$98, sell for \$60. Shunny, 265-1620.
- REFRIGERATOR, Hotpoint, 15.2 cu. ft., \$125, you haul; rims w/ tires for Olds 88 and VW Bug, best offer. Scales, 298-6254.
- ACME Supreme Juicerator, \$100 OBO; two Pearce bookkeeping ledgers, hard covers. Purdue, after 1, 256-0802.
- GARAGE sale, 8/4/84, maternity; infant & children's clothes; toys; baby equipment; household items, etc. 10301 Santa Paula N.E. Hartwig, 298-5048.
- SHEETROCK, 4 x 8; plastic roll-up shades; interior doors; screen doors; galvanized pipe; street lights; yard lights. Mozley, 299-4204 or 265-2625.
- TRACTOR, Allis Chalmers model WD, 35 hp., 3 pt. hitch, \$1500; Majestic coronet w/ case, \$90. Guth, 821-4704.
- PINE CONES, will trade 3 trash sacks of ponderosa pine cones for home-made pine cone wreath. Hawkinson, 281-1281.
- CHILDCRAFT, \$50; naugahyde recliner, \$35; Wilson right hand baseball glove, \$15; drain auger, 50 ft., \$12; new Polaroid Sun 640 camera, \$20. Gaither, 298-1043.
- SOFA w/ matching loveseat, gold w/ green stripes, herculon fabric, sofa 100", loveseat, 56", \$250 both. Evans, 299-7105.
- LOOM, 18" x 17", all accessories, \$15; candle-making supplies, \$10; wrought iron gate, 3'w x 4'h, \$10. Spielman, 292-4953.
- MINOLTA 35mm XE-5 automatic or manual 50mm lens, Telsor 75-205mm zoom lens, Argus flash, carrying bag, Vivitar 2220 tripod, \$350. Cope, 296-0886.
- CHEST of drawers, youth style, birch, \$30; G.E. dishwasher, built in, yellow, \$40; electric cars, \$450 & \$950. Bassett, 898-1840.
- DINETTE Set w/ 5 chairs, \$50; stereo AM/FM/TT, 6 ft. wood cabinet, \$50;

- tire & wheel, 700-15, 5-hole, \$15. Hole, 255-1444.
- FRIGIDAIRE, 12 cu. ft., 2-door, refrigerator, used 2 years, \$185. Gonzalez, 296-3814.
- SOFA & chair, green velvet, \$130. Boyer, 298-3893.
- COLT, government model .45, blue, new in box, \$350. Turner, 293-8938.
- ROLLER skates, girls size 4, white leather, comet wheels, 6 months old, \$45. Garcia, 294-7354.
- LIVING room set, 7' sofa & two overstuffed chairs, maroon / white, \$200; deluxe ping-pong table, 7/8", \$45. Wheeler, 243-9540.
- TENT trailer, Starcraft Executive 6, deluxe model, refrigerator, pressurized hot water, shower, range, toilet, hydraulic brakes, sleeps 6. Moss, 298-2643.
- DISHWASHER, undercounter, avocado, 5 years old, leaky door gasket, \$10. Kerschen, 821-2848.
- ENTERTAINMENT center, AM/FM, FM stereo, phono, 8-track, disco lights, \$100. Wilhelmi, 255-4932.
- ATARI 200 w/ 16 cartridges, \$125; frisbee collection, over 150, \$150. Douglas, 281-9504.
- AIR CONDITIONER, GE window unit, has thermostat, air exchanger & high/low settings for cooling, heating & fan, \$90. Kiefer, 296-2331.
- DANISH modern desk & chair, solid wood, dark, 25" x 48", \$150. Schubert, 821-5839.
- GOLF club drivers, Arnold Palmer R-Pers, H & B citation, S-lamin., graphite shaft, S-sigma Shakespere, \$50 each. Stang, 256-7793.
- ANTIQUE parlor suite, 2 love seats, 2 chairs & platform rocker, \$500. Lukens, 299-1271.
- AKC ENGLISH Springer spaniel pups, liver & white, for hunting or family pet, available 8-11-84. Pettit, 292-0789.
- REMINGTON automatic shotgun, 12 gauge, 5 shot, never used, \$325. Lake, after 6, 888-4581.
- STEREO console, Magnavox, \$110; sneaker roller skates, plastic wheels, size 3, \$15; ping pong table, \$25; green-screen Comrex computer monitor, \$95. Mora, 821-6759.
- '66 HONDA CL160, street or trail, spare parts, extra tires & wheels, Dot helmet included, \$250. Anderson, 821-6693.
- '82 SUZUKI 1100E, 3300 miles, extras, \$2795 or trade. Gunckel, 255-4325.
- '80 SUZUKI GS250T, low mileage, best reasonable offer. Elfner, 265-3335.
- '79 KAWASAKI KZ1000, 2400 miles, extras, \$1700. Guay, 293-6534.
- '72 KAWASAKI Triple, rebuilt, \$600. Riley, 299-8315.
- '80 VOLKSWAGEN Rabbit Diesel, 46,000 miles, \$3495. Prusak, 892-8544.
- '80 PINTO, 3-door, Runabout, low mileage, 33,000 miles, AC, book \$2800, loan \$1925, asking \$2200. Schowers, 822-8494.
- '66 VOLKSWAGEN, hatch back, model 1600, Runkle, 877-2008.
- '70 PONTIAC LeMans convertible, automatic, AC, PS, PB, \$3200. Hooker, 298-4313.
- '77 KZ 750, custom seat, low miles, \$1000. Rich, 897-0491.
- '73 INTERNATIONAL Scout II, 345 auto, AC, skid plates, locking hubs, extra gas tank, extras. Raymond, 869-9196.
- '83 CHEVROLET Caprice Classic stationwagon, 9-passenger, loaded, \$9000. Smith, 869-6002.
- '82 TOYOTA Celica GTS, 5-speed, AC, cruise, louvers, AM/FM stereo cassette, \$9000. Marder, 883-3863.
- '79 HONDA CX500, low miles, well dressed w/ extras, \$1200. Cranfill, 298-3194.
- '81 HONDA XL500S, street legal enduro, 4100 miles, never raced or dropped, NADA \$1050-\$1115, sell for \$1000 firm. Schkade, 292-5126.
- '78 TOYOTA Corolla, 2-door, AM/FM, 4-speed, 1200cc, radials, 52K miles, \$2700. Osburn, after 4, 298-0354.
- '65 PLYMOUTH Fury II, 383 engine, AC, 140,000 miles, original owner, power brakes & steering, best offer. Purdue, after 1, 256-0802.
- '77 KZ 900, 700 miles on 1015 engine, chrome RC header, mags, luggage rack, back rest. Roth, 243-3283.
- '75 MUSTANG II, 4 cylinder, 4 speed, one owner, 69,000 miles, \$1050. Danclovic, 869-6086.
- '81 SUZUKI PE250 Motocross/Enduro, never raced, less than 500 miles, \$800. Turner, 293-8938.
- '74 OLDSMOBILE Cutlass Supreme, 36,000 miles, auto. transmission, AC, power brakes & steering, \$1900. Blackledge, 294-6030.
- '82 ISUZU PU, 20K miles, PB, PS, AC, new WSSBR tires, AM/FM cassette, 5-speed, long bed, trailer hitch, \$5500. Hernandez, 268-5000.
- '76 TRIUMPH TR7, rebuilt engine, new tires, \$1000 OBO. Shaw, 299-8524.
- '74 DODGE Dart, 6 cyl, AC, Michelin tires, \$900. Morris, 292-5112.
- '83 BUICK Park Avenue diesel, fully loaded, sunroof, take over payments plus \$500. Sena, 299-3591.
- '78 BMW 320i, 76,000 miles, dark silver w/ tan interior, Recaro seat, sunroof, alloy wheels, AC. McDowell, 281-1509.
- '72 TOYOTA Corona Deluxe, rebuilt, automatic trans, AC, new radials, 70K miles, 4-door, \$950. Rutz, after 5 weekdays, 296-9590.

TRANSPORTATION

- WARDS 26" 10-speed bike, \$25. Romero, 293-8611.
- MOPED, Peugeot, model 103SP, \$300. Clendenin, 299-2071.
- BICYCLE 26", boys, blue 10-speed, Schwinn, \$70. Byers, 298-8326.
- VESPA p125cc motorscooter, blue, \$750. Beall, 298-2206.
- RAMPAR dirt bike, pads, thorn proof tubes. Eisenberger, 877-7041.

REAL ESTATE

- 3 BDRM, Ranchos de Placitas, 2300 sq. ft., Jacuzzi, pool, 4+ acres, corals, 2 fireplaces, heated brick floors, beamed cathedral ceilings. Kanuika, 293-3834.
- 2.25 ACRES in Peralta, residential area, completely fenced, rear access, \$56,000. Carlyon, 299-2318.
- 3/4 ACRE residential corner lot in Tome (Los Lunas Area), 10% assumable w/ equity down \$15,500. Vigil, 836-6314.
- 3 BDRM, 1920 sq. ft., study, den w/ fp, 2 bath, sprinklers, alarm system. Sanders, 897-0533.
- PASTURE & barn for horses, located in North Valley, price negotiable. Lackey, 898-6638.
- 1981, 14 x 60 Melody Mobile Home, 2 bdrm, 1 bath, front kitchen. Walker, 281-9587.
- 3 BDRM, 2250 sq. ft., 2 bath, extra large den, 2-car garage, workshop, in North Valley. Katzenstein, 344-7855.
- TOWNHOUSE, 1400 sq. ft., two story, two car garage, carpeted, 2 bdrm, 3 bath, fp, refrigerated air, clubhouse, pool, extras. Conklin, 821-6181.
- 3 BDRM, 1 bath, big den w/ fireplace, new oak parquet floor, 1250 sq. ft., S.E. location, \$55,000. Mareda, 883-8824.
- 2 BDRM duplex, near UNM, separate double garage. Rugh, 242-9774.
- SPACIOUS 2 or 3 bdrm house on 2 acre, South 14, wood burning stove, cabinets galore, 1850 sq. ft. Thomas, 281-2870.
- FOREST Lakes near Durango Colorado. Lake, after 6, 888-4581.
- 5 1/2 ACRES in Jemez Mtns., electricity, pure spring water, natural gas, national forest surrounding, ponderosa pine & meadow, \$48,500. Hughes, 299-6674.
- WANTED**
- HONDA MAGNA owners: considering buying one; would appreciate hearing about your experiences pro or con. Schkade, 292-5126.
- HYDRAULIC camper jack. Zownir, 256-3753.
- OPPORTUNITY to make copy of video (VHS) or cassette recording of Jesse Jackson's speech to Democratic Convention. Jones, 268-5236.
- ARBOR press & band saw blade welder. Kurowski, 881-1859.
- 3" CHROME roll bar for a short, wide Ford pickup. Jaramillo, 1-864-8491.
- FISHER Price airport, zoo, house, fire station & farmhouse in good condition for donation to non-profit agency. Hartwig, 298-5048.
- PARTNER to buy a single-engine, turbo-charged airplane for \$30-50K. Jones, 298-2067.
- FLUTE, used and in good condition, reasonably priced. Bernal, 869-2305.
- FOR RENT: 4-HILLS, 4-bdrm, 3-bath, 3000 sq. ft., 2-car garage, big yard, 2 yr. lease or 1 yr. w/option, avail. Aug. 20, Yonas, 294-3384.

Shrimp Tonight, Snow White Tomorrow

TONIGHT at Happy Hour, the W.D.C. Variety band holds the bandstand while the kitchen staff prepares the Club's famous shrimp peel. The tab is \$7.25. Happy Hour starts right after work and runs with special prices until the ballroom band starts playing at 8:30. Dining room hours are from 6 to 9 p.m.

Next Friday, Aug. 10, the dining room will feature two-for-one steak, free country dance lessons instructed by Karen Edwards, and Deputy Dan on the bandstand.

TOMORROW, Walt Disney's "Snow White and the Seven Dwarfs" is the classic animated film scheduled for Variety Night. This is the one that moved the movie cartoon into the realm of art. If you haven't seen it, borrow a kid and attend. Food service with your favorite super sandwiches begins at 5; the movie starts at 6. On Saturday, Aug. 25, another Walt Disney film will be shown. It's "Bedknobs and Broomsticks." A magic bedknob placed on an old brass bed transports an apprentice witch (Angela Lansbury), three Cockney waifs, and a phony magician on their journey to find a lost magic spell that will save England from the Nazis during WWII. Admission is free to members and their families.

TRAVEL IN MEXICO will be discussed at a meeting in the Club ballroom on Monday, Aug. 6, at 7:30 p.m. Speaker will be Bob Butler (7233) of La Guia Tours. Bob will show slides and discuss the upcoming Coronado Club-sponsored charter bus trips to ride the Cumbres-Toltec scenic railroad on Sept. 30 and the Aspencade tour on Sept. 26-30. The railroad excursion costs \$48 and the Aspencade, \$220. Get details Monday evening.

The Club is also sponsoring a trip to



FUND FELLOWS — Four German Marshall Fund fellows examine an experimental photovoltaic array during their recent visit to Sandia. They are Almut Engelen (Germany), Adriaan van Dis (Holland), Pierre Viaud (France) and, kneeling, Kermit Norlund (Denmark). The German Marshall Fund of the United States was established in 1972 by a gift from the Federal Republic of Germany to commemorate American postwar assistance under the Marshall Plan. The Fellows spend six weeks touring the US. All of Sandia's visitors are journalists except Viaud, who is an assistant to the deputy mayor of Paris. The group also visited the VAWT and the CRTF.

Mazatlan Nov. 12-19 for \$399. Literature is available at the Club office.

A TEEN POOL PARTY On Thursday, Aug. 9, offers a twin bill of swimming and dancing for teenagers of member families — a pool party and music by Dunn's Dancing Machine. Cokes and popcorn are free. Hot dogs go for 50 cents. Teenagers pay \$1 admission and may bring one non-member-family guest for another \$1. The fun starts at 7 p.m., continues until 10 p.m. Enter through the swimming pool gate.

ON SATURDAY, Aug. 11, the Coronado Club Second Annual Chile Contest and Fiesta starts at 11 a.m. This is the one that separates true Rio Grande-style chile from California chile, Texas chile, Arizona chile, and all other travesty-style chile. Notice, we spell it *chile* — not *chili*. There's a dif-

ference, and the true chile cooker knows this. Here's the way it works: bring a gallon of your favorite recipe of red or green and enter before 1 p.m. Winners will be announced by 4 p.m. The number one winner gets \$100. Number two walks away with \$50. In the meantime, contestants and spectators can enjoy the outstanding Rio Grande-style Mexican food luncheon buffet prepared by Chef Henry that will be spread starting at 11 a.m. (Hot dogs and hamburgers available at the snack bar.) A portable bar will also be in operation featuring margaritas for \$1. At 1 p.m. a swinging Latin variety band called Lumbre will unlimber guitars and maracas and make beautiful dance music under the covered patio. Members with pool tickets admitted free. Others pay \$1 admission; guests, \$1.50.

GOURMET DINING (CLUB 35) is scheduled this month on Tuesday, Aug. 14. The first 35 couples to make reservations are the Club 35 members for August. Here's the menu: chicken liver pate with port and figs, two-melon soup, choice of salmon scaloppine with wild rice, mushrooms and tomato sauce or grilled duck with mustard and basil, stuffed tomatoes Provencale, green beans vinaigrette, and almond tulipes with strawberries and whipped cream. The evening starts at 5:30 with a wine taste or cocktail before dinner and ends with coffee and brandy or afterdinner drink. The price is \$35 per couple and includes everything but the tip. Call 265-6791 right away for reservations.

THURSDAY FAMILY SEAFOOD NIGHTS continue to please members. Manager Mitch Griffin has scheduled two more on Aug. 16 and 30. They feature all-you-can-eat fish and chips for \$4.95. In addition, your favorite crab mornay, swordfish, shrimp scampi, and halibut will be available along with standard steak specials. Reservations are a good idea. Dining hours are from 6 until 8:30.

DEPARTMENT OF JUSTICE VISITORS —

Three attorneys from the DOJ in Washington toured Sandia and the Nevada Test Site recently. The purpose was to increase their understanding of the Labs' role in the nuclear weapons complex. They, and Sandia's attorneys, are actively involved in the defense of litigation arising from atmospheric nuclear tests. From left, Dave Bickel (7535), who explained how the laser tracker follows a target on the rocket sled track; Jeffrey Axelrad, director of the Torts Branch of the Civil Division; Quin San Hamel, General Attorney 4000; Paul Figley, Senior Trial Counsel; and Wayne Vance, Deputy Assistant Attorney General.

