

DMTS Awards Announced

The first 50 recipients of the new Distinguished Member of Technical Staff have been named by Small Staff. As announced in the Feb. 4 LAB NEWS, the awards recognize sustained performance or unique contribution related to Sandia's mission by members of the technical staff. Each award includes a plaque, a pin, a \$1000 (before taxes) check, and the honorary title of DMTS. The 50 award winners and a summary of the work for which they are recognized are included on the center pages of today's LAB NEWS.

With Sprayed-On Explosives

Peacekeeper Missile Unit Tested in Area III

In a blast simulating some of the forces involved in a possible nuclear encounter, the entire fourth stage of the Peacekeeper missile was subjected to an explosive impulse test at the Light Initiated High Explosive (LIHE) facility in Area III recently. A semi-circular array of quartz lamps, fired by a capacitor bank, flashed to ignite the explosive that had been sprayed in a precisely-controlled layer onto the surface of the circular test unit weighing about 3600 pounds.

Purpose of the test was to record the structural response of the fourth stage to a controlled surface impulse. Data from the

test will become part of a computer model to predict the response of the system to a wide variety of loading conditions such as those created by a nuclear blast.

The missile's fourth stage contains considerable electronics, small rocket motors, and rides just under the base platforms for multiple warheads.

A layer of explosive sprayed on one side of the cylindrical surface of the unit was the key to the test. The sprayed unit was then transported by a monorail carriage to a test chamber located next to the spray booth. Remotely triggered, the intense flash of light from the quartz lamps initiated the explosive simultaneously (within microseconds) over the entire sprayed test unit surface. Strain gages, displacement gages, and accelerometers recorded the response of the structure.

The test marks the end of a year-long series of tests on various scale model and full-sized components of both the third and fourth stage segments of the Peacekeeper. Twenty-three impulse tests on hardware, including cable raceway segments, extendable exit rocket nozzles, and sections of the shell of the missile, have been conducted.

The fourth stage structure is four times larger in area and 10 times heavier than any

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LAB NEWS

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SANDIA NATIONAL LABORATORIES

MARCH 4, 1983

Minimal Changes in Sandia Benefits To Result From AT&T Divestiture

In August 1982, the federal courts approved settlement of the government's antitrust lawsuit seeking to break up the Bell System. As part of that settlement, AT&T agreed to divest its Bell Telephone Operating Companies effective Jan. 1, 1984. In December 1982, AT&T filed with the federal court a plan of reorganization outlining the manner in which that divestiture would be accomplished. Essentially, AT&T plans to form seven Regional Holding Companies and to transfer to each of these AT&T's present interest in several of the Operating Companies. In turn, each current AT&T shareholder will own stock in the post-divestiture AT&T as well as stock in each of the new Regional Holding Companies (See related article). In addition, a corporate Central Staff Organization, jointly owned by the Regional Holding Companies, will be formed. This organization will generally furnish administrative, technical, and managerial support to the Regional Holding Companies of the kind now furnished by AT&T.

A recent article in the Bell Lab News sets forth the expected impact on Bell System benefit plans resulting from divestiture, including those that will apply to the companies (including Sandia) remaining part of the AT&T-affiliated group after divestiture (such as Bell Labs and Western Electric and their subsidiaries). The following article excerpts pertain to Sandia:

Savings Plan

The split of the Bell System Savings Plan for Salaried Employees (BSSP) and the Bell System Savings and Security Plan for non-salaried employees (BSSSP) will be accomplished "in a manner that assures specific investment stability and retention

of account integrity to participants during and after the divestiture process."

Each regional holding company and the Central Staff Organization will establish plans that are similar to BSSP and BSSSP.

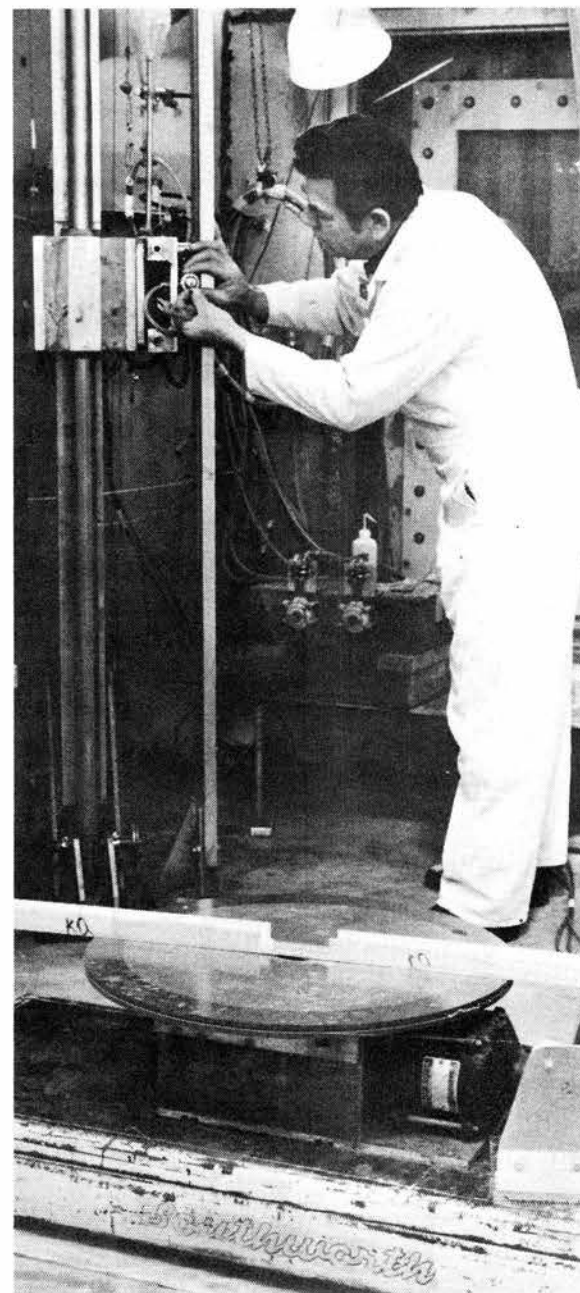
The accounts of participants who are employed by a regional company or its subsidiaries or the Central Staff Organization at divestiture, or who are reassigned after divestiture from one company to another and are covered by a new interchange agreement, will be automatically transferred or converted to the plan of the receiving company and will reflect the value of each participant's accumulated allotments and associated employer contributions, as well as the earnings thereon.

Currently, BSSP offers the following investment options: AT&T shares, a guaranteed interest fund, a diversified equity portfolio, and a government obligations fund. BSSSP offers AT&T shares and a guaranteed interest fund as investment options. Here is how each option will be treated after divestiture:

AT&T Shares: Each employee who has elected to invest in the AT&T shares option through Dec. 31, 1983, will have units in a fund holding shares of the seven regional holding companies and AT&T. This fund will be called the Diversified Telephone Portfolio (DTP). No new money will be invested in the DTP. Employees will be permitted to transfer the value of their units from the DTP fund to other investment options in accordance with applicable plan terms.

Among other alternatives, therefore, employees in the regions will be able to transfer the value of their units in the

(Continued on Page Five)



SPRAY NOZZLE for high explosive is readied for use by Louis Perea. In foreground is the turntable that holds the test unit while the layer of explosive is applied.

Antojitos

It is a pain and a pleasure to be involved with announcing the 50 recipients of Sandia's first round of DMTS awards. It was a pain in that LAB NEWS got the list of recipients on Wednesday afternoon last week, began the picture-taking process on Thursday, finished it on Friday, and waited for the write-ups of achievements that appear with each one and will be engraved on each recipient's plaque. Add the usual frantic pace of a printer's deadline day, and--yes--the pressure was a pain. (We're crossing our collective fingers that the right photo is with the right name is with the right achievement summary in today's center spread.)

But it is also our very real pleasure to introduce to you 50 technical staff people who won awards. I certainly don't claim to know them all personally, but I've worked over the years with several of them, and I know by reputation several others. I've talked with most of them during the aforementioned rush for photos and found them invariably gracious and cooperative in the face of our deadline pressures.

Collectively, they represent an amazing breadth of discipline and an impressive depth of talent. A solid bunch. "Sandia's heavy hitters," my boss calls them.

We are not alone. President Dacey said recently, "These are people whose contributions are enormously valuable. The DMTS awards are a way to recognize that."

Congratulations!

•BH

Quando mires a tu vecino lavar, pon la tuya a remojar. (When you see your neighbor washing, put yours to soak.)

People Data System Made More Useful

Late last month, almost everything Sandia knows about each employee — education, job history, pay levels, achievements, and the like — was transferred to a new computer data system. The transfer involved over a million individual record items.

According to George Connor (2623), head of the project team that built the system, "We'll now be able to use the capabilities of the Univac 1100/82 computer to update and maintain employee records and to provide supervisors who have a job opening with complete and accurate data on all in-house job applicants."

Gone now are the "flimsies" that Personnel used to have to update by hand and duplicate on a copier whenever an employee sought a new position. A computer-generated Employee Placement Report will replace the old record. Eventually, those who need personnel data will have on-line access to it, subject to the ability of the system to protect privacy of data and availability of computing/communications facilities.

Gone too are the manual functions involved with both current and historical record-keeping. In addition, information on education (both formal and Sandia-sponsored), pre-Sandia employment, and supplementary achievements will become more accessible as updating continues on these and other records (LAB NEWS, June 25, 1982).

"One difficulty in constructing the new system is that so many organizations are involved with either originating and maintaining the information, or in using it, or both," says George. "We — that is, the project team from Data Base Design Division 2623, Personnel Systems Design Division 2626, and Personnel Data Division 3532 — have worked very closely with representatives from such groups, especially with users like Education and Training Department 3520, Personnel Division 8212, Education Division 8214, Management Information Division 8215, and all of the Personnel Reps. The resulting People Data System will improve the quantity and quality of employee information, allow easier updating, and provide automated access to those people authorized to have it.

"At the same time, we've protected the data with encoding and decoding algorithms, passwords, user profiles (which determine what level of information, for example, is available only to those with a need to know), and organizational restrictions (a given manager, for example, can get access to records of employees on his or her staff only)."

Congratulations

Victor (3435) and Rita Baca (3741), a son, Victor Isaac, Feb. 5.

Andy (2144) and Debbie King, a daughter, Amanda Rachelle, Feb. 21.

Gary (1234) and Pat Allen, a son, Peter James, Feb. 4.

Sheryl (2420) and Chuck Boberschmidt, a son, Scott Loren, Jan. 31.

Events Calendar

March 4-6* — Ballet West — all new production of "Swan Lake," with NMSO, 8:15 p.m., *2:15 p.m., Popejoy.

March 4-27 — "Remembering Us," Fridays and Saturdays at 8 p.m., Sundays at 2:30 p.m., Vortex Theatre, 247-8600.

March 5 — N.M. Jazz Workshop: Blues singer Sippie Wallace in concert with pianist Jim Dapogny, classic blues & jazz from the 1920s, 8 p.m., KiMo.

March 5-6 — NM Gun Collectors Assn.: 26th Annual Spring Antique and Modern Gun Show; 8 a.m.-6 p.m. Sat., 8-4:30 Sun., Exhibit Hall, State Fairground.

March 6 — Chabad Lubovitch of NM

presents MEGAMA in concert, 3 p.m., KiMo, 242-2231.

March 9 — Latin America Feast of Film, Luis Buñuel's *Los Olvidados*, English subtitles, 7 p.m., admission \$2, auditorium, Albuquerque Museum.

March 11-12 — NM Symphony Orchestra concert with cellist Nathaniel Rosen, 8:15 p.m., Popejoy.

March 12 — "A Peasant of El Salvador," sponsored by the Committee for Human Rights in Latin America and the Student Coalition for Human Rights in Latin America, 8 p.m., KiMo.

March 13 — Zarzuela, a Spanish Operetta, "¡En las astas del toro!"; 2 and 8 p.m., KiMo, 883-0440.

March 13-June 4 — "Finished in Beauty: Southwest Indian Silver from the Doneghy Collection," a traveling exhibition organized by the Minneapolis Institute of Arts, Wheelwright Museum of the American Indian, Santa Fe.

March 16 — Travel Adventure Film, "Switzerland," 7:30 p.m., Popejoy.

March 18-19 — The Follies presents the Alvarado Twilight Show, starring Johnny Carsick with Ed McMayhem and guest stars, 8 p.m., KiMo.



The Third World has found that having one's own satellite for one's own uses is enormously useful. India links the most isolated sections of the country through communications satellites and television broadcasts. Indonesia uses satellites as bridges between its islands. Thailand, Argentina, Canada, China, and Australia all extract Landsat data to locate minerals and other resources.

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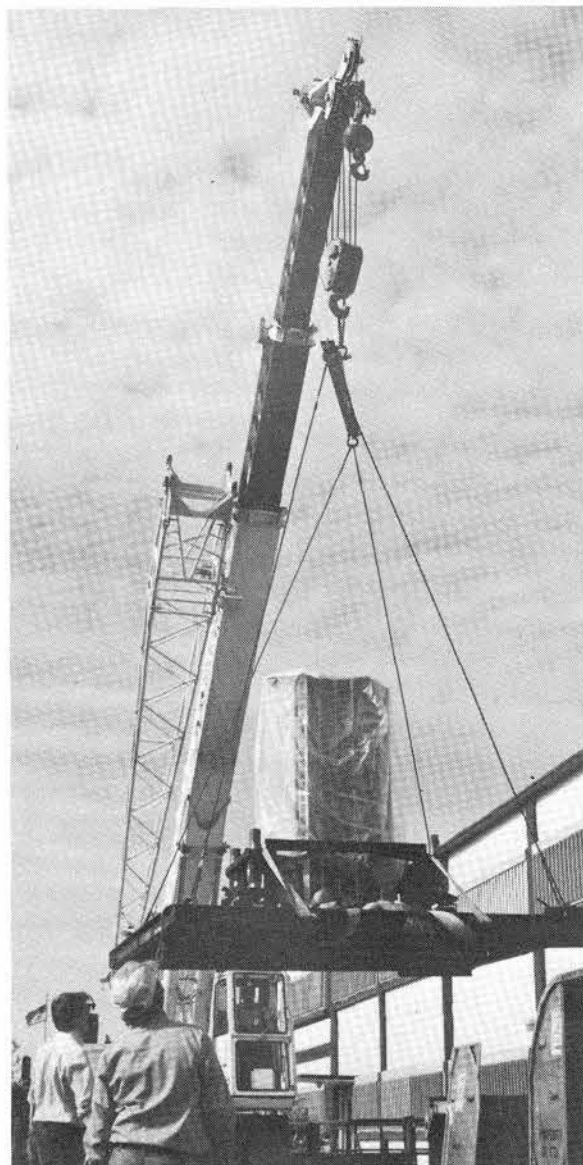
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THE CAPACITY of Sandia Livermore's Cray 1-S computer has been doubled with the delivery recently of a memory expansion unit. The original Cray, which arrived two and a half years ago, provided 500,000 words of memory. The additional half million words have been added to the central core at the Computing Center. A crane lowered the unit into the basement addition to Bldg. 912.

Congratulations

Ollie Rohrback (8413) and Sue Bateman, married Feb. 14 in Livermore.

Sympathy

To Sharron Tyler (8214) on the death of her mother in Fremont, Jan. 26.

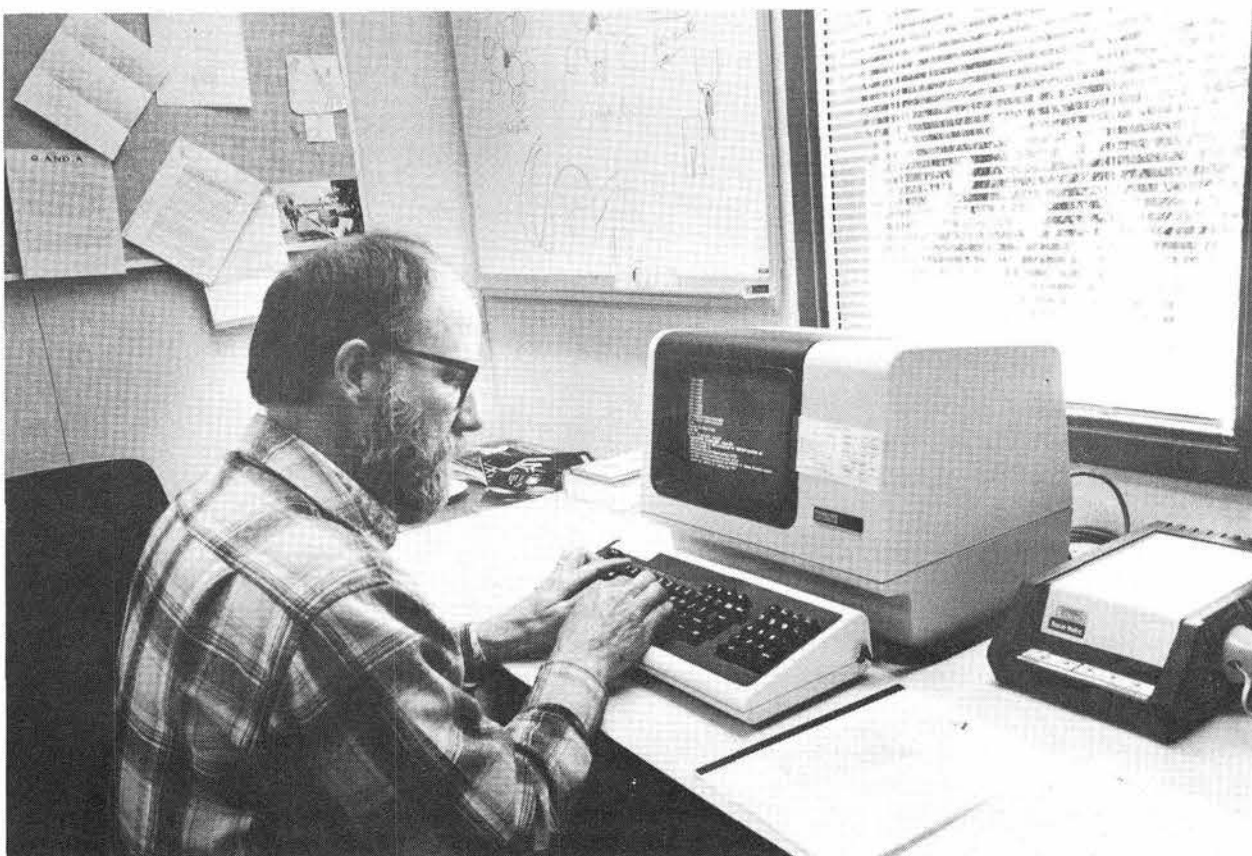
To Marge Mederios (8275) on the death of her father in Pleasanton, Jan. 28.

To Curtis Cofield (8463) on the death of his mother in Pleasanton, Feb. 12.

Retiring



Bob Frost — 8168



MONTE NICHOLS'S (8313) work entails the application of differential x-ray diffraction analysis to crystalline materials. The diffraction pattern obtained reveals the crystal's atomic arrangement, enabling him to identify the compounds it contains. One of Monte's goals is to demonstrate that x-ray diffraction analysis can be a practical tool for industry.

Differential Diffraction Analysis

New Technique Identifies Difficult Crystalline Compounds

A new x-ray diffraction technique has been developed by Monte Nichols (8313) in conjunction with Quintin Johnson (LLNL) and Deane Smith (Penn State). Called "differential diffraction analysis," it resolves some common difficulties in identifying mixtures of several compounds.

Conventional x-ray diffraction analysis is based on the fact that atoms in crystalline materials are arranged in planes. These planes vary in terms of their distance from each other. X-ray diffraction analysis involves focusing a single wavelength x-ray beam on the material. Some x-rays are diffracted at an angle determined by the spacing between the planes of atoms. Focusing the beam through several planes of crystals produces a distinctive diffraction pattern, or series of peaks, whose positions reveal the spacings between planes and whose intensities indicate how the atoms are arranged. These patterns, then, provide an excellent basis for identifying crystalline compounds.

"For instance," says Monte, "we may need to determine which of three forms of titanium oxide, all with the same chemical composition, have formed on a steel surface. X-ray diffraction is the only method that tells us directly which of these oxide compounds is present. It can differentiate between these chemically identical oxide compounds because the atoms in each one are arranged differently — thus their diffraction patterns differ."

But when the material under analysis is a mixture of compounds, the resulting pattern is too complicated to permit determining which peaks in the pattern arise from which compound. That's where differential diffraction is useful. "By measuring the difference between two diffraction patterns of the same sample that have been made using two different wavelengths, we have been able to indicate which peaks in a pattern arise from compounds containing a given element and which peaks are coming from phases that do not contain that element. Such information greatly simplifies the identification of compounds in a mixture," says Monte.

His group is developing differential x-ray diffraction analysis to be applicable to a number of crystal identification challenges by combining a standard x-ray instrument with a range of commercially available detectors. "One of our goals is to have some form of differential x-ray diffraction analysis adopted as a practical tool for industry," says Monte. "Because we won't be able to completely develop this instrumentation, we'd like to interest industry in carrying it further."

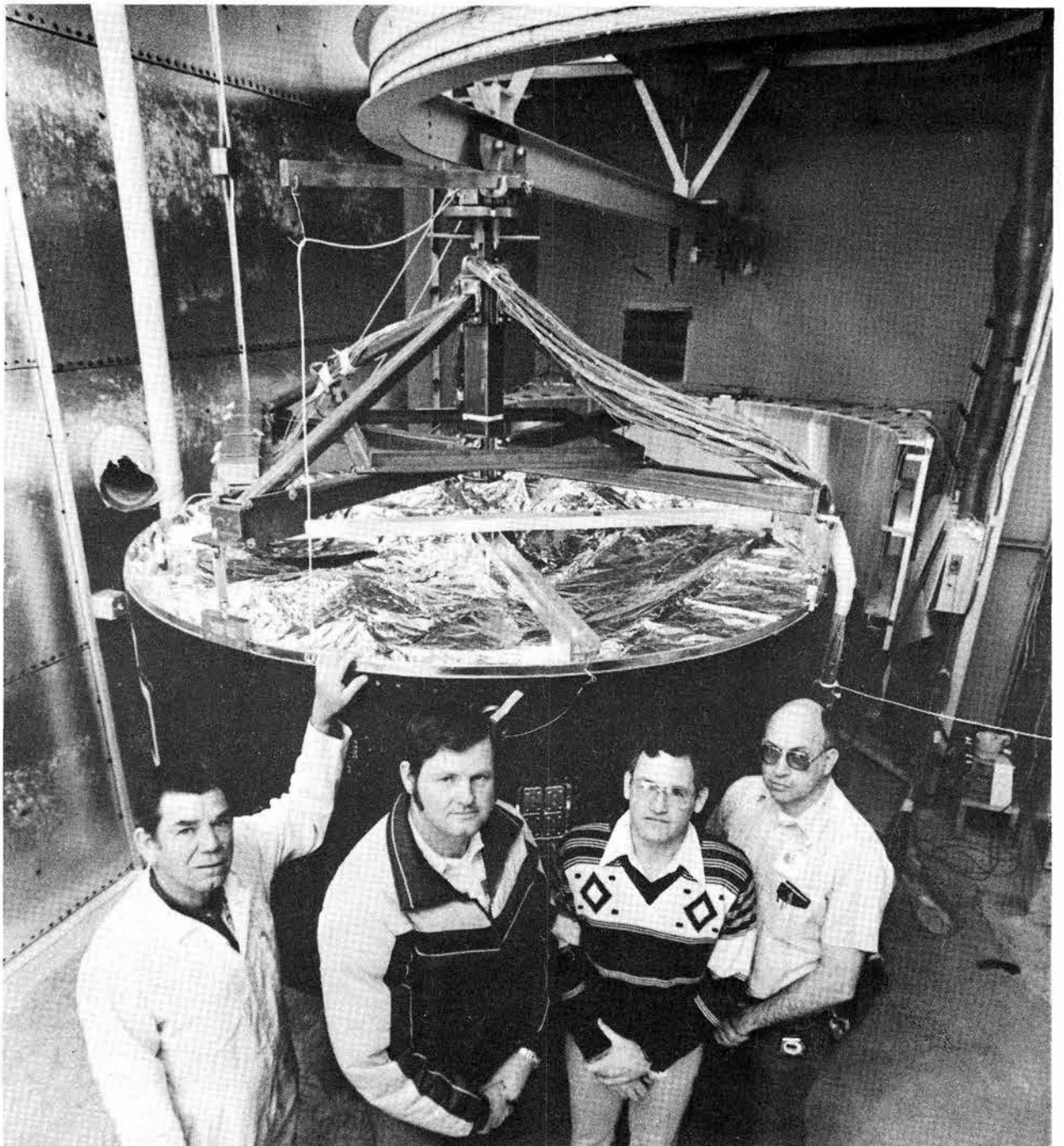
Another of Monte's techniques, a computer program for compound identification using x-ray diffraction, has already been successfully transferred to IBM where it was modified and is now available as part of an IBM analysis system.

Peacekeeper Missile Tested

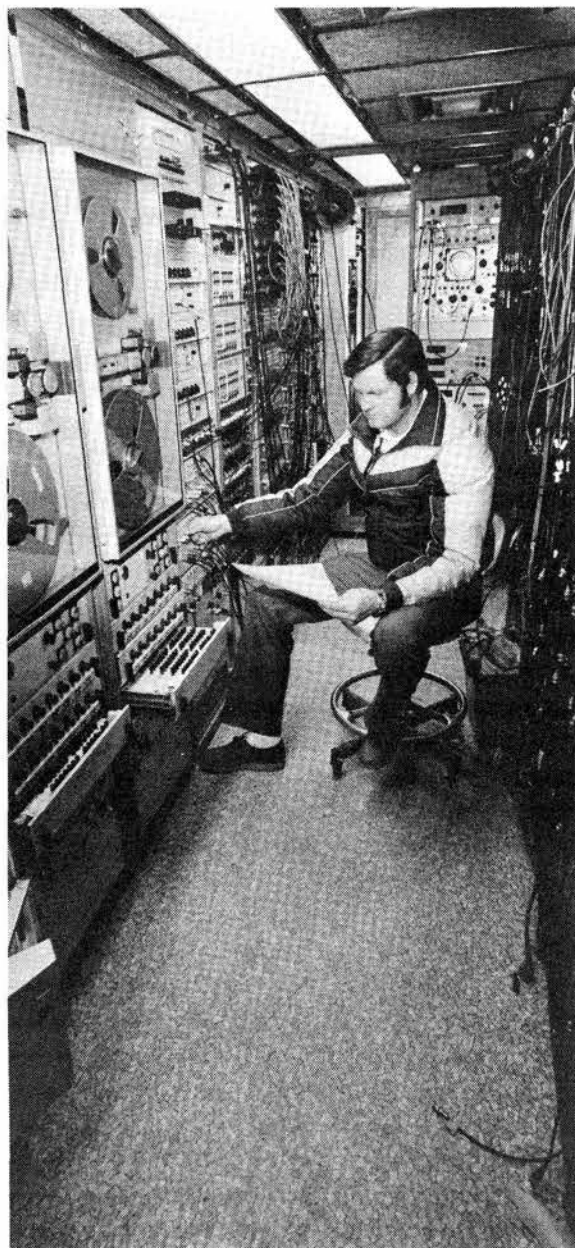
structure previously tested at the LIHE facility, according to Bob Benham (7533), test project leader. To accommodate the test unit, the spray booth was enlarged, a new monorail and carriage was installed, and the test area (which had been outside) was enclosed. The bank of quartz lamps was expanded, and the instrumentation system was upgraded from 68 to 91 channels to record the required data.

The test program was conducted as a reimbursable project for Rocketdyne through the Ballistic Missile Office of the Air Force. Physics International was responsible for fielding the experiment. PDA is developing the computer model for the system response, and TRW is technical consultant to the Air Force for the project.

Jim Bear (7535) is program manager. Dale Hill and Louis Perea (both 7533) handled explosive spraying and test operations. Ben Duggins (7533) was responsible for data recording, and Phil Higgins (7333) developed and operated the light source and high voltage capacitor bank power modules. Billy Pierce (7556) provided photometrics coverage. Margaret Weber (7542) conducted vibration tests that preceded the impulse tests.



FOURTH STAGE of a missile is suspended from an overhead monorail prior to being sprayed with a layer of high explosive for impulse testing. From left are Louis Perea, Ben Duggins, Bob Benham, and Dale Hill (all 7533) who conducted the test at the Light Initiated High Explosive facility in Area III.



BEN DUGGINS recorded data from 91 channels during the explosive test.

Fun & Games

Volleyball — SERP's Spring Volleyball season will start March 28, and league president Larry Azevedo (6-2529 or 4-2358) is now accepting rosters as well as names of individual players who wish to be placed on a team. Teams are co-recreational (any combination of men and women is acceptable), play is competitive or recreational (separate divisions for each), cost is \$8 per person, and play is Monday through Thursday evenings. Sandians, DOEans, and approved contractors as well as spouses and dependents of proper age are eligible to participate. Team managers need to get an official roster form from Larry, so bump, set, and spike — and Go Volleyball.

Kayaking, Canoeing, and Rafting — With all the great snow we've had this winter, you can expect some great river water this spring. Kayaking, canoeing, and rafting trips will be offered once again through SERP. Jack O'Neil of WOLF (Western Outdoor Leisure Frontiers) will teach kayaking classes starting April 4 and May 2 (white-water and flatwater, respectively). In addition, a one-day canoe trip is planned for June 11; moonlight canoe trips on Cochiti (with a steak dinner) in May, June, and Ju-

ly, (and rafting trips each Friday down the Taos Box) start May 13. Call recreation manager Tom Lenz on 4-8486 for more info on all these outdoor activities.

X-C Racing — The NM Ski Touring Club has a ski race on March 6 at 11 a.m. It's at Bluebird Mesa (11 miles east of Cuba on State Road 126), and it's \$5. Compete in either the 10 or 20 kilometer divisions; ribbons for winners in each age/sex category. More info from Stew Kohler on 294-7150.

Safari — The zoo has announced two Spring Wildlife Safaris for fourth and fifth graders, one on March 30, one on March 31, both from 9:45 a.m. to 3 p.m. Preregister with Catherine Hubbard on 843-7413.

Miscellany — KAFB's Arts & Crafts Center sends word on several activities: 1) a teenage (14-19) class in black/white photography begins March 9 and runs for four weeks. 2) Two basic auto maintenance classes begin March 7, from 1 to 3 and from 6 to 9 p.m. 3) The Arts & Crafts Center hours on Wednesdays and Thursdays are now 11 a.m. to 9 p.m. Info on any of these at 4-0222.

Benefits

DTP to the fund holding shares of their particular regional holding company.

Employees in the post-divestiture AT&T group of companies will be able to transfer the value of their DTP units to a fund that holds shares of AT&T.

Guaranteed Interest Fund: Upon divestiture, each of the new regional company plans and the Central Staff Organization plan will be assigned an interest in the existing guaranteed interest fund under the pre-divestiture guaranteed contracts. The amount will be based upon the value of the accounts of each company's participants that are invested in the guaranteed fund at the time of divestiture. After divestiture, each company will make its own contractual arrangements for an ongoing guaranteed fund option, either with the current insurers or other insurers of each company's choice.

Diversified Equity Portfolio and Government Obligations Funds: The assets of the BSSP equity portfolio and government obligations funds will be divided among the AT&T, regional holding company, and Central Staff Organization plans at divestiture on an asset-by-asset basis in proportion to the value of participant account interests in such funds.

Bell System Voluntary Contribution Plan (BSVCP)

This plan, similar to individual retirement accounts, was established by AT&T as a national plan in September 1982 to offer employees a supplemental retirement program. The various existing investment option funds of the Voluntary Contribution Plan will be treated at divestiture in a manner similar to the funds associated with the savings plans.

AT&T will continue to maintain the Voluntary Contribution Plan for itself and its remaining group of companies. The regional holding companies will establish plans offering the same investment options as are presently offered under the current System plan, except that AT&T shares will not be offered and shares of the sponsoring regional company will be substituted as an investment option.

Bell System Employee Stock Ownership Plan (ESOP)

The Bell System Employee Stock Ownership Plan (ESOP) is an "employer securities" stock bonus plan established under the Internal Revenue Code. Each of the regional holding companies will establish an employee stock ownership plan.

Because of the allocation of regional company shares in the divestiture process, the various plans will hold shares of both AT&T and each of the regional companies immediately after divestiture. Shares other than those of a sponsoring employer cannot be retained by an ESOP plan because such plans may only hold sponsoring-employer securities. Accordingly, at divestiture, the trustee of the plan for the AT&T group of companies will be directed to dispose of all the regional holding company shares it holds and reinvest the proceeds in AT&T shares.

A recent article from WE's NEWSLINE on current AT&T shares is reprinted here.

* * *

According to the reorganization plan, stockholders will receive one share in each regional holding company for every ten shares of AT&T common stock owned as of a record date in December 1983.

Following incorporation, the regional companies will begin to compile and organize the vast quantity of data required by the Securities and Exchange Commission for financial documents dealing with stockholder prospectuses and other information.

During October or November of this year, the regional companies will file applications to list these stocks on the New York Stock Exchange (NYSE) and other major exchanges they select. At about the same time, the boards of directors of the regions will announce their quarterly dividends for the first quarter of 1984, and AT&T's board will announce its dividend.

Trading begins in late '83

These announcements are expected to set the stage for trading of the regional company stocks on a "when-issued" basis, beginning in November or December on the NYSE and continuing into February 1984, when the first certificates will be distributed. Normal trading will then begin.

The distribution ratio of one for ten means that for every ten shares of AT&T stock owned, the AT&T investor will receive one share in each of the seven newly-created regional companies. To ease burdens on share owners with fewer than 500 shares and on the regional companies, arrangements will be made to facilitate the initial distribution and trading of regional company shares and to reduce associated costs.

Share owners who own at least ten, but less than 500 shares and are, therefore, entitled to receive at least one, but less than 50 shares in each regional company, will be sent a statement indicating the number of shares which are being held for them in computerized stockholder accounts.

Three options offered

At that time, they will be offered three options:

- They can request certificates for their whole shares in any regional companies and receive cash for any fractional shares; or
- They may deposit any regional company shares in the appropriate regional company Dividend Reinvestment and Stock Purchase Plans (DRISPPs); or
- They can sell the stock of one or more regions and invest the proceeds in the stock of one or more other regions, with the regional certificates either remitted to the share owner or enrolled in the stockholder's (DRISPP)

Similarly, trustees of each regional holding company plan will be directed to dispose of the shares held other than its own and reinvest the proceeds in its company's stock.

(Further information on each of these plans will be published as it is received.)

account in the selected regional company or companies.

At the present time, share owners with less than 500 shares represent about 77 percent of all accounts and about 30 percent of the outstanding shares. The three options will be offered for approximately four to six months following divestiture.

After the deadline

After that period, those share owners who have not expressed a preference for one of the three alternatives will automatically receive certificates for the whole shares to which they are entitled in the seven regional holding companies and cash for their fractional holdings.

Share owners with less than ten shares of AT&T stock will be entitled to less than one full share in each regional holding company and will not participate in the options. They will, instead, receive cash for their fractional shares. This group represents about 17 percent of the accounts and about one quarter of 1 percent of all outstanding shares.

Large shareowners — those with accounts containing 500 or more shares of AT&T stock — will receive certificates for the regional shares to which they are entitled and cash for fractional shares.

Orders from share owners with less than 500 shares will be accumulated to reduce trading costs. Transactions will be recorded in share owner accounts and appropriate fees will be charged for sales and purchases to consolidate holdings.

According to AT&T Vice President and Treasurer Virginia Dwyer, the one-for-ten distribution ratio was selected so that regional company shares would be traded in a price range appropriate to their eventual listing on major stock exchanges. Dwyer added that a primary motive for offering the options was to assist share owners with less than 500 shares in rearranging their holdings, if they chose, at reduced cost. Also, she added, these arrangements will help reduce the enormous share owner populations and the attendant costs of providing share owner services for the divested companies.

2.7 million shareholders

At divestiture, each regional company will have an estimated 2.7 million share owners. This will be the second largest body of share owners of any domestic corporation, exceeded only by AT&T (which will have about 3.2 million). Next in size to the regions will be General Motors, with 1.1 million.

It is estimated that more than 100 million share owner transactions will be processed for the regional companies and AT&T during 1984 — the first year of divestiture. Because of the unprecedented, combined burden of more than 22 million share owner accounts that will exist at divestiture, AT&T will establish and operate a wholly-owned subsidiary, made up of the company's existing stock and bond division operations in Piscataway, N.J., and New York City, and a new facility in Jacksonville, Fla. The new subsidiary will provide a full range of record keeping and other share owner services for AT&T and, on a fee basis, for regional companies.

Feed the Hungry - Feel the Reward

To many of us, eating a meal is a matter of when, where, and how much. To some of our neighbors, it's a matter of whether. For them, the Roadrunner Food Bank in Albuquerque is vitally important.

Roadrunner's goal is to feed the hungry in New Mexico. It is one of 43 food banks located across the nation under the direction of Second Harvest, the National Food Bank Network, headquartered in Phoenix.

The concept of food banks is simple: to solicit salvageable food for distribution to non-profit organizations that assist the poor. Second Harvest provides technical assistance in starting food banks; it also solicits food from large national corporations, food that is delivered to the food banks.

The Reverend Titus Scholl, a man well known in the area for his work with the needy, started and directed the first food bank in the city. In October 1980 a Community Service Administration grant made possible the hiring of a full-time executive director and the establishment of a distribution center. The director, Buddy Gallegos, continues the work of the Reverend Scholl and expands the service whenever possible. Dependent upon grants (if available) and donations — dollars, food, equipment, volunteers — the food bank has slowly increased its ability to help those in need. Donors include the city and state, churches, businesses, and individuals. Eight mini-banks have been established throughout the state, and the Food Box Program was begun to assist directly those families in need of emergency food.

"We don't hand out food to individuals here at our distribution center," Buddy explains. "Instead we work with over 100 agencies in the state. A representative from each of these agencies — non-profit organizations and social services groups — takes a look at our inventory and tells us what the agency needs. We do our best to fill the order."

Last year, 485,000 pounds of food was salvaged from local and corporate donors. This food was distributed through the agency representatives — agents — to groups that include providers of meals for the elderly, 16 Indian pueblos, the Navajo reservation, youth half-way houses, alcoholic and drug recovery programs, women's shelters, Head Start programs, soup kitchens, and homes for mentally and physically handicapped children and adults.

"We established the Food Box Program in 1981," Buddy says, "to provide food during crisis situations. We don't want to make people dependent upon us for a daily or weekly hand-out of food. The food boxes are distributed on an emergency basis with careful screening of the recipients. In fact, an individual or family can receive only three boxes in a six-month period."

Three distribution centers handle the food boxes — the Store House (NE and NW areas of the city), the Baptist Neighborhood Center (SE), and the Casa Armijo (S). The boxes are packed and delivered by Roadrunner volunteers to the three sites,



TOM MORGAN (3543), on the right, and Buddy Gallegos, director of Roadrunner Food Bank, sample a donation of sugar cookies. Tom and his wife Marion support the food bank through volunteer work at the warehouse and with donations — equipment, food, and money.

also run by volunteers. A startling fact has emerged from the Roadrunner Food Box program: Five hundred *different* families each month are recipients of food boxes. "But," Buddy adds, "only eight percent return for more food. I think that's an encouraging statistic."

Most of the food bank inventory comes from corporate donors — large food manufacturers. Arrangements for the donations are made by Second Harvest, but the individual food banks pay the transportation costs. The food arrives in semitrailer loads; delivery costs run \$1400 to \$1800 per load.

Roadrunner Food Bank owns a 13,000-square-foot warehouse, a 10-ton truck purchased with a grant from the Levi-Strauss Foundation, a VW van donated by Metro Ministries, and a 1920-square-foot walk-in cooler and freezer donated by Safeway. Roadrunner can provide prompt pick-up service of donated food items including those that require refrigeration.

"We are seeing a large increase in the amount of food requested by the agencies," Buddy says. "We used to estimate that approximately 500,000 pounds of food must come through our warehouse each year to adequately meet the challenges of hunger, but if the current economic trend continues, we may have to adjust our figures."

In addition to Buddy, the food bank employs one full-time and two part-time helpers. Volunteers are needed for two hours each day to clean and sort food and to pack food boxes. Someone to fix a roof leak and install some windows would also be appreciated.

"We have applied for a federal block grant," Buddy says. "If we qualify, we'll be able to meet the demand for cash outlays — fuel for and maintenance of vehicles (a replacement for our van is desperately

needed), \$6000 a year for utilities, and the \$1400 plus for each load of food delivered to us."

Other needs include shelves, metal cabinets, pallets, pallet jacks, fork lift, freezers, refrigerators, office equipment, and building materials to remodel and expand their warehouse space. And, of course, the primary need is food: assorted canned goods, powdered milk, dairy products, canned meat, dry cereal, rice, beans, spaghetti, noodles, fresh fruit, vegetables, canned juice, baby food, baby formula, bread, and flour.

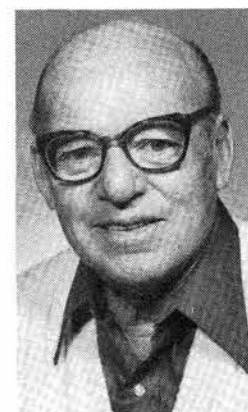
Anyone want to sponsor a semi-trailer load of food? In the next few days, Buddy has two loads coming in — oranges from California and dried potatoes from Idaho.

The Roadrunner Food Bank is located at 1119 Edith SE. Anyone interested in helping can call Buddy on 247-2052.

KNME Presents 'Festival 83'

Albuquerque's public television station, KNME TV5, will present 16 nights of special entertainment for its "Festival 83," beginning tomorrow night. This fund-raising event is an effort to increase public awareness of the station and to promote public support. The station reports that over 50 percent of all the television viewers in New Mexico, southern Colorado, and eastern Arizona tune into TV5 at least once a week, but only four percent of the viewing audience supports the station with individual financial contributions. Approximately 30 percent of KNME's budget must come from the community.

"Festival 83" will feature the music of Duke Ellington, the Weavers, Mario Lanza, Jerry Reed, Helen O'Connell, Frederica von Stade, Pearl Bailey, and the Beach Boys; drama with Henry Fonda as Clarence Darrow; documentaries on Hitler's SS troops, the great whales, and yacht racing; mystery with William Conrad and Howard Duff; and movies with Humphrey Bogart, Fred Astaire, and Yul Brynner. Some regular programming will be part of "Festival 83." Check your TV listing for times and dates.



Death

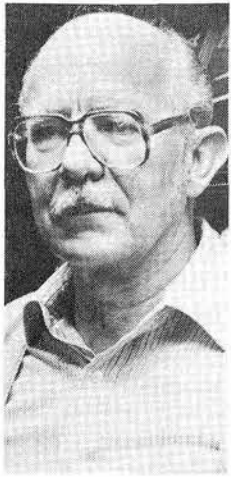
Al Young of Mobile and Remote Ranges Division 7137 died Feb. 22 after an illness. He was 64.

He had worked at the Labs since April 1946.

Survivors include his widow, three sons, and a daughter.

Distinguished Members of Technical Staff

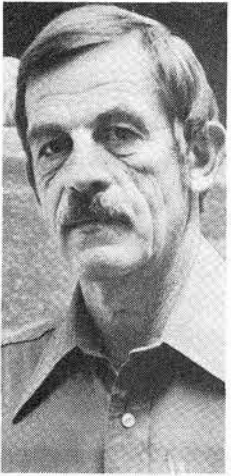
Jim Durham (0311)



For his high standards of innovation and leadership in a diverse mix of analytical and empirical problems. He has established himself as a national expert in seismic instrumentation and verification systems. In each area of involvement at the Laboratories, he has rapidly established his expertise and

demonstrated his organizational ability.

Don Bauder (0313)



For his consistently excellent mechanical and systems engineering judgment, creativity, and dedication. As the responsible engineer in the design of critical elements of the National Seismic Stations, he established his expertise and leadership with a wide variety of government organizations.

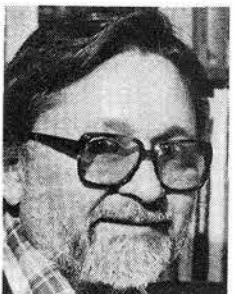
Warren Brown (0314)



For his consistently sound scientific judgment and great capacity to coordinate major studies. He is a nationally recognized expert in the propagation of microwaves in disturbed and natural environments. His mathematical models of nuclear effects on the atmosphere and microwave propagation

in the ionosphere are standards for large elements of the defense community.

David Brice (1111)



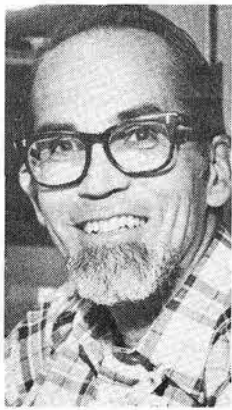
For his outstanding contributions to the theory of ion implantation range, energy, and damage depth distributions, and for his sustained outstanding theoretical performance.

Cecil Land (1112)



For his sustained and outstanding research and development contributions to understanding the optical, electro-optic, and ferroelectric properties of ferroelectric ceramic materials and devices.

Bob Graham (1131)



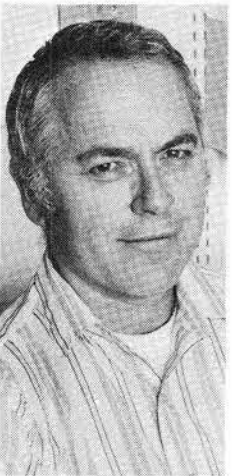
For his sustained outstanding research into the fundamental properties of shock-compressed solids and for his contributions to the development of quartz and lithium niobate piezoelectric stress gauges for time-resolved measurements on shock loaded matter.

David Emin (1151)



For his fundamental theoretical work on small-polaronic transport in solids. His sustained contributions to small polaron theory have been highly relevant to understanding transport in amorphous materials, high-temperature thermoelectric devices, and molecular solids, and to luminescence in glasses.

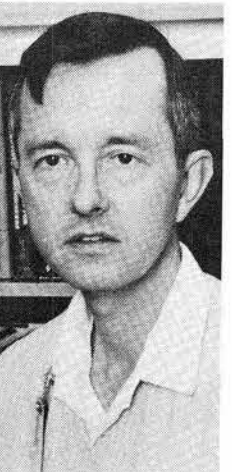
John Halbleib (1231)



For his contributions to understanding electron-photon Monte Carlo transport and to the development of multi-material, multi-dimensional computer codes which take account of transport in macroscopic electric and magnetic fields, and for the large impact of his work on the DOE weapons effects simulation

program.

James Poukey (1241)



For his contributions to the development of the first self-consistent field solver and particle pusher codes to model electron-pinch experiments and to the analysis of virtual cathodes, collective ion acceleration, electron ring accelerators, high-current ion beam accelerators, and electron beam transport in

gases.

Wolfgang Wawersik (1542)



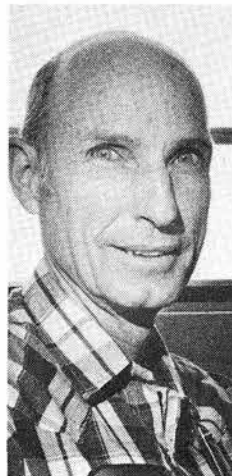
For his experimental contributions to research on fracture, flow, and creep of rocks, and for his important interpretations of experimental data on time-dependent creep of rock salt.

George Allshouse (1247)



For his technical guidance on driver requirements for the light ion beam and imploding foil approaches to fusion and for his continuing contributions, at all three weapons laboratories, to the Nuclear Weapons Program and the Inertial Confinement Fusion Program.

Lynn Barker (1534)



For his development of the first analog computer at Sandia for analyzing heat transfer in aircraft structures, of one of the first computer codes for wave propagation studies, of a theory for describing wave propagation in composite materials, and of ultrahigh resolution instrumentation for shock wave measure-

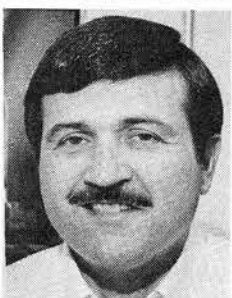
ments.

Vic Roh (1621)



For his innovative contributions to the development of nuclear weapon electrical systems and to significantly improved safety, security, and reliability in nuclear weapons systems.

Al Hodapp (1631)



For his contributions in the field of flight dynamics analysis. In particular, his work has led to increased understanding of factors that affect the flight dynamics of artillery projectiles.

Don Amos (1642)



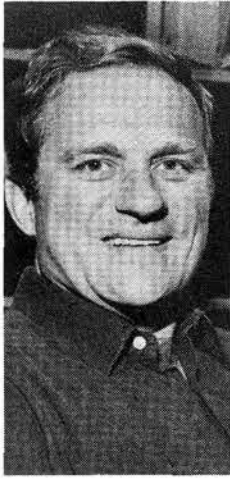
For his contributions to the development of computer programs that form part of mathematical libraries. In particular, his AMOSLIB is widely used in the DOE complex and in industry.

John Marcon (2313)



For sustained, outstanding performance and innovation in the design and development of automated test instrumentation for weapon components.

Frank Zanner (1833)



For his demonstration that the principal cause of macrosegregation during vacuum arc remelting (VAR) is due to an imbalance between buoyancy and Lorentz force-induced fluid flows. This discovery is a major contribution to the improvement of homogeneity of alloys processed by VAR technology.

Bob Dosch (1843)



For his contributions to titanate, zirconate, niobate, and tantalate chemistry, in particular his discovery of a titanate ion exchanger to extract trace radioisotopes from nuclear waste streams and his development of a process to produce a durable titanate waste form.

Dick Knutson (2122)



For his outstanding and consistent technical contributions in the area of hybrid microcircuit technology. His individual contributions have led to the successful implementation of thick film technology in the DOE complex with significant improvements in manufacturability and savings in cost.

Howard Mauldin (2153)



For his continued outstanding technical performance and his leadership in the development of high-density energy storage capacitors, which have had significant impact on system designs through reduced volume and increased reliability.

Don Peterson (2424)



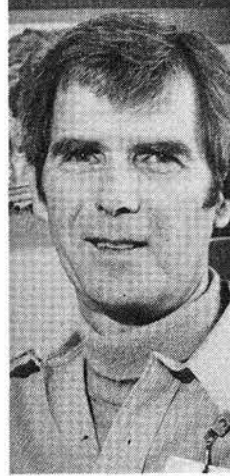
For his outstanding contributions to the analysis of mathematical models and the formulation of computer simulations of weapon systems. For his leadership in computer aided design and his international reputation in the fields of computational procedures and geometric solids modeling.

Olden Burchett (2515)



For continuing technical excellence and personal contributions in the area of analytical mechanics and engineering design. For specific design innovations in high-pressure explosive devices, for excellence in combining scientific analysis with engineering design, and for providing leadership for multidisciplinary component design teams.

Charles Spencer (2561)



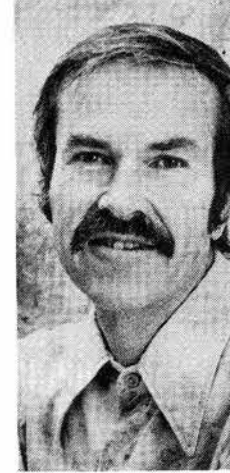
For outstanding performance in the design and development of neutron generators for the nuclear stockpile, including the specific design of a family of explosively driven devices that provide superior capability in neutron output, size, and stockpile life, and for providing technical leadership for overall project success.

Gordon Boettcher (2565)



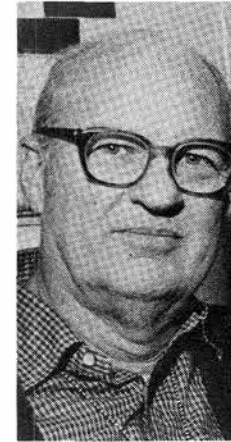
For sustained outstanding performance in design and development of vacuum switch tubes (sprytrons) and over-voltage gaps for use in nuclear weapons systems, including the patented invention of the basic sprytron tube and the development of a dedicated, high technology manufacturing facility that has successfully produced over 300,000 devices for use in the nation's defense systems.

Sam Stearns (7111)



For outstanding contributions to the development of the signal processing and adaptive filtering theory exemplified by his authorship of the texts "Digital Signal Analysis" and "Adaptive Filters"; and for his application of the theory to seismic data analysis, intrusion detection, and subsurface radar sounding.

Glenn Miller (7112)



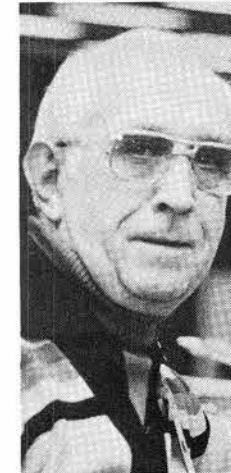
For outstanding performance as a technical director of weapon effects tests which has provided the direction and coordination that assured optimum component and systems response data; and for his contribution in the field of atomic/molecular physics including vapor deposition.

Jay Grear (7232)



For significant contributions to the nuclear weapons program, including lead roles in conceiving and implementing novel designs for preventing nuclear detonations in accidents. His technical competence gave vital leadership in DoD/DOE studies for the enhancement of nuclear safety.

Eldon Frame (7263)



For sustained superior performance and outstanding leadership in the feasibility study, development, and implementation of the Sandia Quality Assurance Joint Flight Test Program for the DOE Nuclear Weapons Stockpile and his noteworthy achievements in the W69/SRAM and W80/ALCM Joint Flight Programs.

Charlie Greenwood (7311)



For his sustained, outstanding performance and conspicuous technical contributions to a number of United States space projects, beginning with the VELA Satellite Program. He consistently responds to complex technical challenges with sound and timely designs and exhibits strong leadership at programmatic and systematic levels.

Bill Walker (7525)



For his sustained superior performance in the field of rocket systems mechanical design and the successful and effective leadership of numerous rocket-based projects and campaigns throughout the world that have contributed significantly to the successful accomplishment of Sandia's responsibilities in the conduct and support of high-altitude nuclear test operations and space research measurement programs.

ities in the conduct and support of high-altitude nuclear test operations and space research measurement programs.

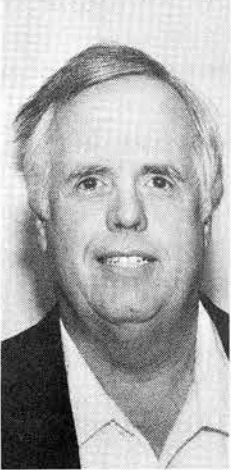
Bernie Stiefeld (7554)



For his sustained excellence in performance on a wide variety of important technical assignments, including creative contributions to the development of new nondestructive evaluation methods; advances in computer-based data systems; development of electromagnetic instrumentation; and advanced materials/manufacturing development for weapon componentry.

materials/manufacturing development for weapon componentry.

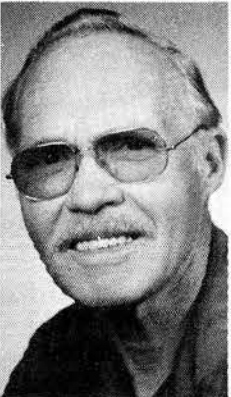
Bill Gordon (8116)



For significant technical contributions to the national nuclear weapons programs including Army tactical systems, anti-ballistic missile systems, the peaceful use of nuclear weapons (Plowshare) and overall expert consultation in nuclear safety issues, electrical systems integration, and design certification to abnormal environments.

to abnormal environments.

Morris Mote (8312)



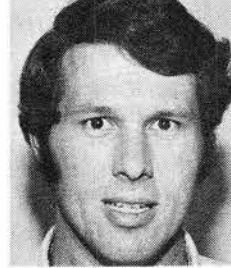
For his sustained contributions to the development and production of nuclear weapons for over 20 years, with conspicuous involvement in the selection of materials and in the specification and certification of processes at production agencies.

Jim Rogers (8324)



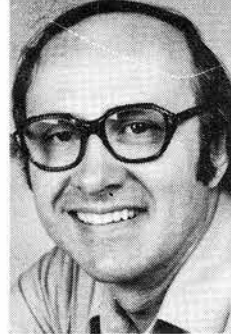
For his sustained and significant performance in bringing the quality of Sandia battlefield conflict simulation to the forefront of U.S. national capabilities.

Larry Rahn (8342)



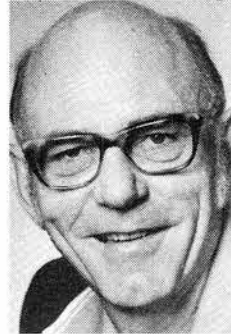
For his significant contribution in developing nonlinear Raman spectroscopy into an important optical diagnostic of combustion systems.

Lee Radosevich (8454)



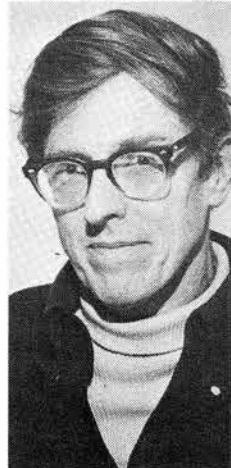
For his consistently high technical performance in the national nuclear weapon program and more recently in the solar thermal program.

Ed Williams (8463)



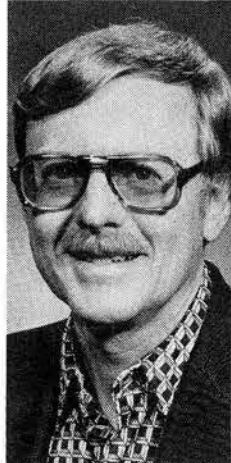
For his continued outstanding performance in a wide variety of assignments in Weapons Development and Instrumentation projects.

Neil Botsford (9221)



For his sustained outstanding technical performance, including the design and analysis of miniature complex mechanisms; the design of various safeguards mechanisms; the development of several complex weapon system components; and support of the Los Alamos nuclear rocket program.

John Andersen (9225)



For his sustained outstanding technical performance, including the development and certification of accident-resistant containers for the air shipment of nuclear materials; serving as project leader and mechanical designer for an experimental reentry vehicle project; his lead role as mechanical designer for several weapon development programs; and for the untiring work he has done for the engineering profession.

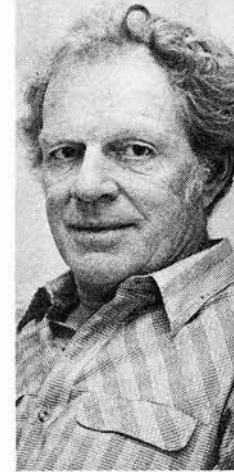
designer for several weapon development programs; and for the untiring work he has done for the engineering profession.

Bob Neel (9234)



For his sustained and excellent performance on a wide variety of assignments in weapons development, energy systems, and safeguards and security projects.

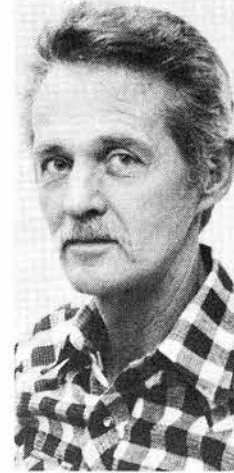
Jim de Montmollin (9260)



For his continued outstanding technical performance including nuclear security programs; International Atomic Energy Agency safeguards initiatives and associated non-proliferation activities; broad system insights on several tasks of great national importance; long-term contributions to weapons development and test programs; and many individual professional contributions to technical and government organizations.

ment and test programs; and many individual professional contributions to technical and government organizations.

Lloyd Merrell (9312)



For his sustained and significant technical contribution to the national nuclear weapons program, including participation in the successful design of two integrated arming, fuzing and firing systems for Navy reentry bodies; design support for the electrical system of an earth penetrator weapon; and participation in various technical investigations of weapon systems.

tion in various technical investigations of weapon systems.

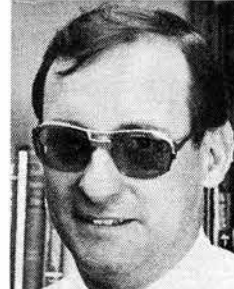
Hal Bennett (9416)



For his sustained outstanding performance and conspicuous technical contributions in defining requirements for United States' offensive and defensive nuclear weapon systems and in developing methods that are universally used in the design and performance analysis of physical protection systems for nuclear facilities and transportation.

nuclear facilities and transportation.

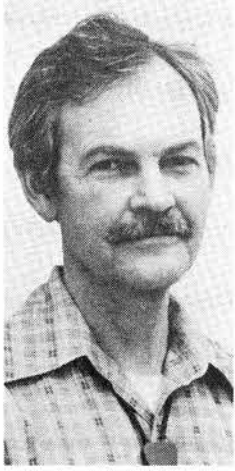
David McArthur (9423)



For his sustained superior performance and conspicuous technical contributions through experimental and analytical research on reactor safety, nuclear-pumped lasers, and plasma physics.

and plasma physics.

Dick Brodie (9371)



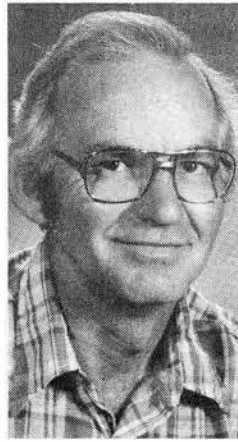
For his sustained and significant technical contributions to the national nuclear weapons programs, including the stockpile improvement program; support of the Long Range Resources Planning Group; examination of the philosophies and formalisms related to nuclear weapon use control policies; and the development and teaching of an in-house course on nuclear weapon design.

Bob Hunke (9727)



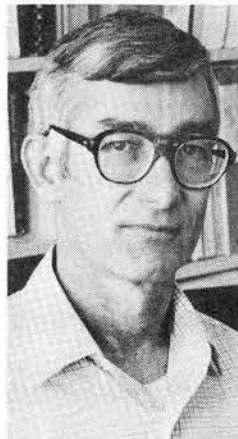
For his sustained and unique technical contributions to the nuclear weapon and solar energy programs, including technical project management of weapon electrical systems engineering and test; space nuclear auxiliary power technology development; ballistic missile warhead evaluation; and management of the Shenandoah Total Energy Project.

John Zimmerman (9727)



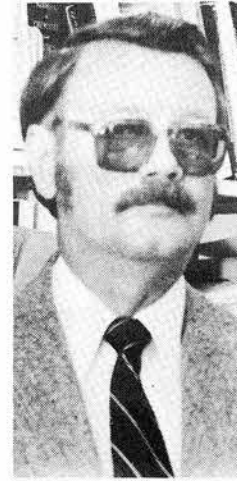
For his sustained superior technical performance and outstanding contributions to nuclear weapon and solar energy programs, including the design and testing of arming, firing and fuzing systems; the hardening of weapons; participation of the Readiness-to-Test program; and the development, construction, and evaluation of the Shenandoah Solar Total Energy Project.

Felton Bingham (9733)



For his sustained and outstanding contributions to molecular and plasma physics research; laser and physical chemistry research; waste management technology; and for his guiding role in the preparation of environmental documents for the WIPP and UMTRA programs.

Darrell Munson (9732)



For his sustained superior technical performance, including the development of programs in shock wave phenomena and dynamic material response; the development and application of constitutive models to predict the response of geologic materials; and *in situ* experiments to develop the technical basis for the safe disposal of nuclear wastes in salt.

Allan Sattler (9753)



For his sustained superior technical contributions to science and engineering, including radiation effects on crystalline solids; technical direction of underground testing; disposal of nuclear wastes in salt; and the characterization of low permeability, natural gas reservoirs.

feed back

NOTE: Do not send Feedback items to the LAB NEWS. To get a response to your comments and questions about Sandia Labs, complete a Feedback form (available near bulletin boards) and return it to the Feedback Coordinator, Division 3161. The substance of questions and responses of wide interest is published in LAB NEWS.

Q. What is the present policy concerning car pool parking? Our car pool works at different parts of Area I. Twice a week I drop off all my rides before parking the car at my job area. Can I then park in the car pool area even though, when I park the car, only the driver is in the car?

A. The car pool parking policy is simple and straightforward — at least two people must exit the vehicle if you park in a designated car pool area. This rule precludes a situation such as yours unless one of your riders continues with you. The rule also lets other car pool drivers know that you are in compliance.
D. S. Tarbox - 3400

Q. MO-103 (west of 880) receives power by a cable running across a sidewalk. There is a wooden cover over the cable. The cable

cover is a tripping hazard as well as a nuisance when wheeled carts are used to take equipment to the parking lot.

A. A work request to route the cables underground or overhead has been submitted.
D. S. Tarbox - 3400

Q. Why the sudden removal of cots from restrooms during the holidays? It's a long walk from the south end of the Tech Area to Medical when one is ill. Further, will Sandia donate cots, blankets, etc., to a charitable organization?

A. A few cots have since been returned to ladies' rest rooms, scattered geographically throughout the area, in locations coordinated with the Medical organization. Since neither state nor federal law required them, the cots were removed to save the cost in time and money of changing and laundering them, considering limited custodial resources. Also, Medical does have a limited number of cots for the use of persons who are ill. The cots and mattresses disposed of were sold at our noon public sale and by lot bid. The blankets, pillows, sheets, etc., were donated to the Salvation Army and St. Vincent De Paul Society.
D. S. Tarbox - 3400

Q. Are there any plans to improve the parking situation on the east side of Tech Area I (between Bldg. 880 and the

cafeteria)? With one new building going up in the vicinity and others on the way, how will parking be accommodated? Are there any plans to pave the parking area surrounding the water tower?

A. Our long-range plans are to pave the parking lot near the water tower, but there are no funds in any current budget. There are, however, sufficient paved parking spaces in the parking lot south of Bldgs. 821 and 823 to accommodate all the cars now parking in the water tower lot. For most people who work in the vicinity of Bldg. 880, the walk is about the same distance to the two parking lots.
R. W. Hunnicutt - 3600

Q. The hot water in every building in Area I is scalding when used for only a few seconds. Cold water must be mixed with it to use it. To conserve energy, can't the temperature settings be lowered on the hot water heaters?

A. We intend that domestic hot water temperatures be set at approximately 105°F. In some buildings, slightly hotter water temperatures are necessary for process control. A survey of the buildings, including T-buildings and MO's, disclosed some domestic hot water temperatures had been raised since the last survey. These have now been adjusted to meet the temperature guidelines. A call to Telecon, 4-4571, is the most rapid means of correcting any hot water temperature problems.
R. W. Hunnicutt - 3600

Take Note

A solar technology conference sponsored by Sandia, DOE, and SERI will be held March 15-17 at the Four Seasons Motor Inn. Called "Distributed Solar Collector Summary Conference — Technology and Applications," the conference will present information on current technology developments and solar projects experience data to solar industry representatives, potential solar system users, and the general public. Bob Alvis (9727) is conference chairman. Registration fee for the three-day meeting is \$25 and includes a luncheon on March 15. Further details and a brochure may be obtained from Carlota Klimas (9727), 6-0215.

* * *

Dennis Kirson (3662) is the featured speaker at a meeting of the Rio Grande Chapter of the Society of Fire Protection Engineers on March 11. He will discuss recent advances in economical and extremely fast-acting automatic sprinklers designed to detect and control residential fires. The group meets at the Albuquerque Elks Lodge, 1642 University Blvd. NE, with social hour at 6, dinner at 7, and the program at 8. Make reservations *right now* with Vern Duke (3662), 4-1958.

* * *

The fourth national meeting of the DRS User's Society (DRSUS) is scheduled in Albuquerque March 16-18 at the Marriott Hotel. DRS is a database management software package that is being used on several of Sandia's VAX-type computers. Registration information is available from Tom Sullivan (0315).

The American Society for Quality Control, Albuquerque Section, meets for dinner March 8 at 7:30 p.m. at the Coronado Club to celebrate Quality Week. Speaker will be Bill Mondt, former UNM football coach and now executive vice president of the Galles racing team. For reservations, call Gerry Rudolfo (7417), 4-1142, or Bruce Coleman (2426), 4-5340.

* * *

Judges are needed for the NWNM Regional Science and Engineering Fair to be held March 18-19 at UNM. If you have a technical degree and are interested, LAB NEWS (M0125) has a form you can use to volunteer.

* * *

The Vortex Theatre is holding auditions for George Bernard Shaw's comedy "Candida" on March 5 and 6 at 1 and 7 p.m. Director Allison Davis (1813) is looking for two women (ages 25-35) and four men (ages 18-65) to complete the cast. The Vortex is located on Buena Vista at Central, across from UNM. For additional information, call Allison, 281-2429.

* * *

Carl Cianciabella (1244) was understandably pleased last week when Security notified him that some money he had lost had been found. Simon Siaz (3426), a custodian on the night shift, found the money (\$40) on the floor near Carl's desk. He turned the money over to Security and the next morning Carl got it back.

Rose Ann Schultz (2613) wants to join a car pool that can pick her up close to Louisiana and Constitution. If any of you qualify, give Rose Ann a call at 4-7509, or call Rusty Puccini at 4-8897. Says Rusty, "It's a great chance to help a fine woman." (Rose Ann is visually handicapped and does not drive.)

* * *

"Warmline," a new service inaugurated on Feb. 1 by Parentcraft, Inc., is a telephone call-in counseling service that helps parents with non-medical, non-crisis concerns they may be having about their infants, toddlers, or young children. The number is 266-0808 and it is open for calls from 9 a.m. to 12 noon, Monday through Friday, and from 9 a.m. to 1 p.m. on Saturdays. Persons calling into the Warmline after hours can leave a message and their call will be returned the following day. Warmline counselors answer questions ranging from "how can I get my toddler to sleep through the night" to "is there anything wrong with me because there are times when I don't like my children." The volunteers staffing Warmline are all professionals donating their time and expertise to help parents find solutions to their child-rearing concerns.



"Almost 15 years to the day after the first pulsar was found at Cambridge..." What was it doing there?

— Letter to *New Scientist*

Q. Tech Area I has several narrow streets — between Bldgs. 880 and 892, around Bldg. 836, and between Bldgs. 840 and 841, for example. But the problem is not the width of the streets — it's allowing parking on them. Could we not ban all parking on such streets and enforce the ban so that two vehicles can meet safely?

A. The Traffic Liaison Committee has been asked to review the need for one-way streets or parking limited to only one side of the street. The areas you mentioned are included in the review.

R. W. Hunnicutt - 3600

Q. A dangerous situation exists on Wyoming south of Zuni during the morning traffic rush. I have often seen near misses when drivers use the right lane to speed past the slowly moving cars and merge in front of those who try to abide by the rule of allowing "one car length of space per 10 miles per hour."

I strongly recommend that Sandia ask the city to install a sign requiring right-lane traffic south of Central to turn right during the morning peak traffic period.

A. Since Wyoming north of the KAFB gate is a city street, Sandia can do nothing to alleviate the problem you describe.

R. W. Hunnicutt - 3600

Editor's Note: Since morning rush hour traffic is almost certainly moving at less than 10 mph in that area and since the rule you quote thus calls for slightly less than

one car length between cars, it would seem that the solution is not to allow cars from the right lane into the traffic stream. Ending up in the Wyoming gate parking lot a few times should work wonders in convincing impatient drivers to join the proper lane at the proper time.

R. W. Hunnicutt - 3600

Q. I think that smoking of any sort should be prohibited in elevators and lavatories. I am asthmatic, and at times must use the elevators. But at times I have to cut my way through the smoke clouds left in the elevator by the heavy smokers. The same goes for the lavatories. A person can not go there without gasping for air because of all the smoke. Let them smoke in their offices, if they need to.

A. We agree that smoking in elevators is undesirable for several reasons. Accordingly, Plant Engineering has placed signs in all elevators to that effect.

Prohibiting smoking in lavatories is a more difficult question. Since the utilization of lavatories is limited to a few minutes a day and most lavatories are well ventilated, smoking in such lavatories should not pose any significant problem to the nonsmoker. Accordingly, we do not believe that a blanket prohibition against smoking in lavatories is warranted. You may ask for an investigation through your supervisor of any particular lavatory of concern to you.

P. B. Mossman, - 3300

Q. Is it necessary for the Credit Union to send extra newsletters to my home for each account my family has? We receive four newsletters at home and one through the office mail. The ones mailed to my home are dumped without being opened. Also, account statements for all accounts could be sent to me through the office mail thereby affording another savings.

A. The Credit Union too has been concerned with the effectiveness of the newsletter being sent to the family members. We intend to stop sending the newsletters to the home address and will have more copies available at the Credit Union offices for the family members to pick up. We hope that the primary members will take the newsletters they receive through company mail home to share with their families.

The problem with statements is more involved. Regulations require them to be sent to the member, and even though you may be joint on the account the statements belong to the family member and are to be sent to that member at the last known address. Therefore we cannot put the family member statement in the same envelope with your statement. If we tried to use your organization number as the address of the family member, it would create serious problems for the Sandia mail room as they would have no record of that person. We share your concern about cost and will continue to review requirements and procedures.

C. L. Turner
SLFCU General Manager



AL LAPPIN (9731) and BOB O'NAN (2343).



WENDELL JONES (1832) and DANNY BROWN (3140)

Supervisory Appointments

AL LAPPIN to supervisor of Earth Sciences Division 9731, effective Feb. 16.

Al joined the Labs in 1976 as a member of the seabed disposal organization. For the past five years he's worked on the Nevada Nuclear Waste Storage Investigations Project. Al's current division will continue working on the WIPP Support Project, and will begin investigations into the generic problems of waste management in salt.

Al received his BS and MS in geology from the University of Illinois and his PhD, also in geology, from Princeton. He is a member of the Geologic Society of America. Al's primary leisure time interest is reading American history; he also enjoys golf, bowling, and softball. He and his wife Sandy (1845) live east of the city in Three-Gun Springs Canyon.

* * *

BOB O'NAN to supervisor of Antenna Development Division 2343, effective Feb. 16.

Since joining the Labs' advanced radar development group in 1955, Bob has continued to work with radars, primarily in RF design and as a project engineer.

Bob received his BS in EE from the University of Kentucky and, under Sandia's Educational Aids Program, earned his MS in EE from UNM. He is a member of IEEE.

Bob enjoys photography, hunting, and woodworking. He and his wife Wanda have three daughters. They live in NE Albuquerque.

* * *

WENDELL JONES to supervisor of Physical Metallurgy Division 1832, effective Feb. 1.

Wendell has been with the metallurgy organization since coming to Sandia in October 1976 as a staff member in the Mechanical Metallurgy Division.

He received his metallurgy degrees — BS, MS, and PhD — from the University of Washington. Wendell is a member of AIME and the American Society for Metals. He enjoys long-distance running, fishing, and backpacking.

Wendell and his wife Janet have two daughters and live in the NE heights.

* * *

DANNY BROWN to manager of Technical Library Department 3140, effective Feb. 16.

Danny joined the Labs in 1970 and transferred to the Technical Library a few



BILL DAWES (2120), standing, left; CHUCK SMITH (7262); SHIRLEY DEAN (11-1), seated, left; and KAY HAYS (1831).

months later. She was promoted to supervisor of the Technical Library Systems Design Division 3142 in November 1974.

She received a BA in physics from Mount Holyoke College and an MS in computing science from UNM. She is a member of the Special Libraries Association.

Danny and her husband Warren (0314) enjoy backpacking, hiking, cross-country skiing, and traveling. They live in NE Albuquerque.

* * *

BILL DAWES to manager of Microelectronic Application Department 2120, effective Feb. 16.

Bill has been on leave of absence from Bell Labs since he came to Sandia in March 1975 as a division supervisor. The move was a lateral transfer so that Bill could set up the microelectronic fabrication facility. He had been with Bell Labs for seven years.

Bill received his BS in physics from the University of North Carolina and his MS and PhD in high-energy physics from the University of Arizona.

He enjoys hunting, backpacking, and flying; he's a licensed pilot. Bill and his wife Jeanne have two children and live in the NE heights.

* * *

CHUCK SMITH to supervisor of Flight and Lab Test Development Division II, 7262, effective Feb. 16.

Chuck joined the Labs in 1952 as a component test and evaluation engineer; he has remained with the quality assurance group, working in several areas of the organization. Most recently, Chuck has been a sys-

tems evaluation engineer in the joint flight testing with DoD agencies.

Chuck earned his BS in EE from the University of Iowa. He enjoys camping and fishing. He and his wife Jeanne have four married daughters and five grandchildren. They live in the NE heights.

* * *

SHIRLEY DEAN to supervisor of Secretarial Services Section 11-1, effective Feb. 1.

Soon after joining Sandia in 1958 as a steno clerk, Shirley was promoted to division secretary. She has moved through the ranks of secretarial positions, from division to vice presidency. Most recently she was secretary to VP John Galt (1000).

In this newly created section, Shirley is the secretarial coordinator for the Executive Vice Presidency 10. This entails hiring, placement, on-the-job training, counseling, and helping upper management with their selection of personal secretaries. Shirley represents Sandia in Executive Women International (she is currently president of the local chapter), the Office Curriculum Committee at T-VI, and she is a member of the Sandia Secretarial Committee.

Shirley and her husband John enjoy foreign travel and sports events, particularly those involving the Lobos or the Dallas Cowboys. The Deans live in the NE heights.

* * *

KAY HAYS to supervisor of Cleaning and Coating Technology Division 1831, effective Feb. 1.

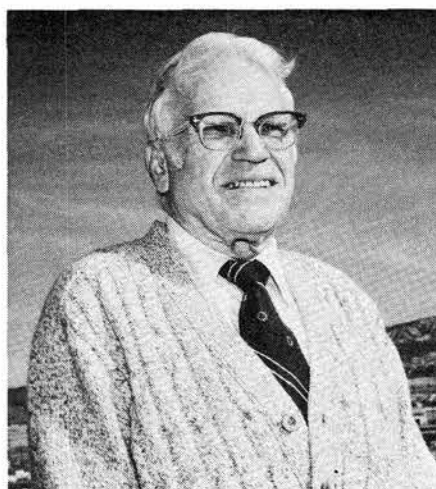
Since coming to Sandia in 1974 as a staff member in the laser physics department,

(Continued Next Page)

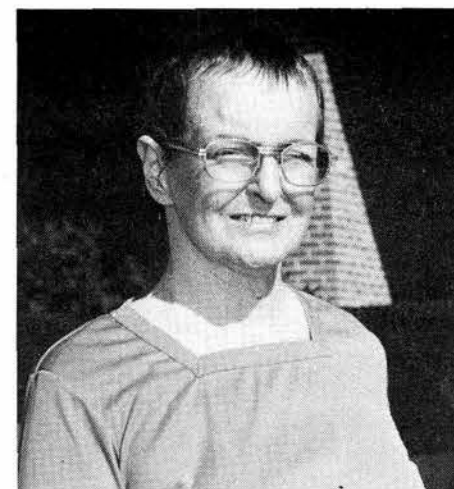
Retiring



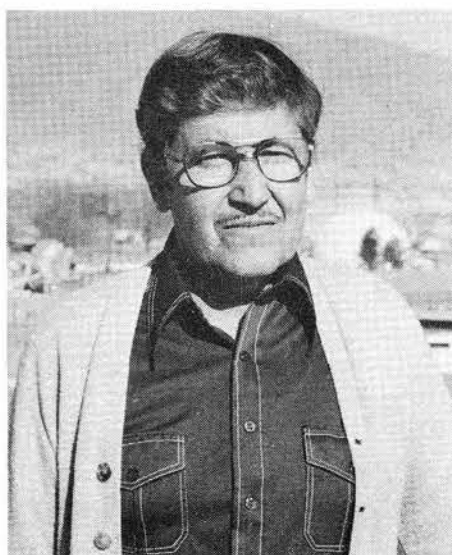
Dick Martin (9215), Norman Ollman (3411)



Peter Komen (2443)



Dorothy Evans (7474)



Bennie Montoya (7474)



Jim Harrison (2452)

Retiree Roundup

By Ted Sherwin (Ret.)

Looking back on the first year of retirement, a few thoughts:

- In these days of high unemployment, it's nice to reflect that I don't have to look for a job and that my leaving may have opened opportunities for others.

- Sandia retirees are lucky to have generous health care benefits, but many of them probably make few demands on the program because they take better care of themselves after they quit work. No guilt feelings about staying in bed if you have a bad cold, and it's easier to get to a doctor to have symptoms checked instead of telling yourself "It's probably nothing; I'll go if I don't feel better next week."

- It's great to have more time to read. (I finished *Winds of War* and *The Thornbirds* so I didn't have to worry about missing some episodes on TV.)

- Keeping up with community activities, and becoming involved in those of in-

terest, is much easier. Educational TV is getting better all the time. And I feel better informed on national and international affairs than ever before and can take time to consider issues more carefully.

- Mistakes in communication tend to be noticed more:

Item: Our senior senator saying "A jobs bill is being *bantered* about. . ."

Item: Howard Cosell saying, "And now the *ineffable* face of. . ." (Wonder what he really meant? Was that other announcer's face really "indescribable?")

Item: *Time* magazine: ". . .before the cameras were ready to *role*."

Oh well, no one is perfect — not even Howard.

* * *

Those contemplating retirement would be well advised to pay strict attention in the briefing sessions Benefits holds, particularly the part dealing with record keeping for income tax purposes. You will be told that you should be sure to hang onto the computer printout (TF-6A or TF-6B) you receive with your distribution, which gives a detailed breakdown of your distribution from the Bell System Savings Plan or the Bell System Savings and Security Plan.

That printout, and the income tax work sheets booklet you receive at the same time, will be invaluable in figuring out how to report your taxable income from the savings plan distribution you receive upon retirement. Next January you should receive a tax information form (W2-P or 1099R) from Bankers Trust Company. The form contains some confirming information on the distribution from the savings plan in which you

participated. The form may or may not show the taxable amount of the distribution. Likewise, the form may or may not show how much of the lump-sum distribution must be reported as ordinary income, how much as capital gains, and how much in unrealized appreciation in the value of stocks received. The reason that this information may not be on the form is that Bankers Trust does not know how recipients reported past withdrawals for tax purposes. You may have to compute these amounts from the printout mentioned above, and in many cases it will be well worth while to do so. If you use the special 10-year income averaging provision, for example, you will need that breakdown for IRS Form 4972. As I mentioned in a previous column, you need to determine whether or not the 10-year income averaging provision is better for you (by preparing your return both ways) and then, if you *are* using the income averaging provision, whether to include the total taxable amount as ordinary income, or report the capital gains part separately. There may be a substantial difference in your tax liability.

Now that the IRS has a provision for tax withholding on annuities, it should not be necessary to file a Declaration of Estimated Tax and to make quarterly payments unless you have substantial income from sources not subject to withholding. In general, if your withholding will approximate 80 percent of your tax liability for the year, you don't need to file quarterly returns. You just file one return and pay the difference, if any, at the end of the year.

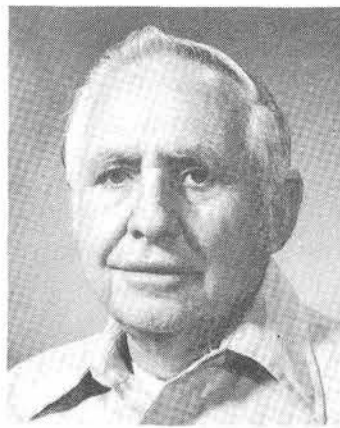
Kay has worked on the development of high-power-lasers for laser fusion and, more recently, on plasma polymerized coatings in the organic materials organization.

Kay earned a BS in chemistry from the University of Texas; an MS in chemistry from the University of California, Berkeley; and a PhD in physical chemistry from UCLA. She is a member of the American Physical Society and the American Chemical Society. She enjoys biking, backpacking, and skiing. Kay and her young son live in the NE heights.

MILEPOSTS

LAB NEWS

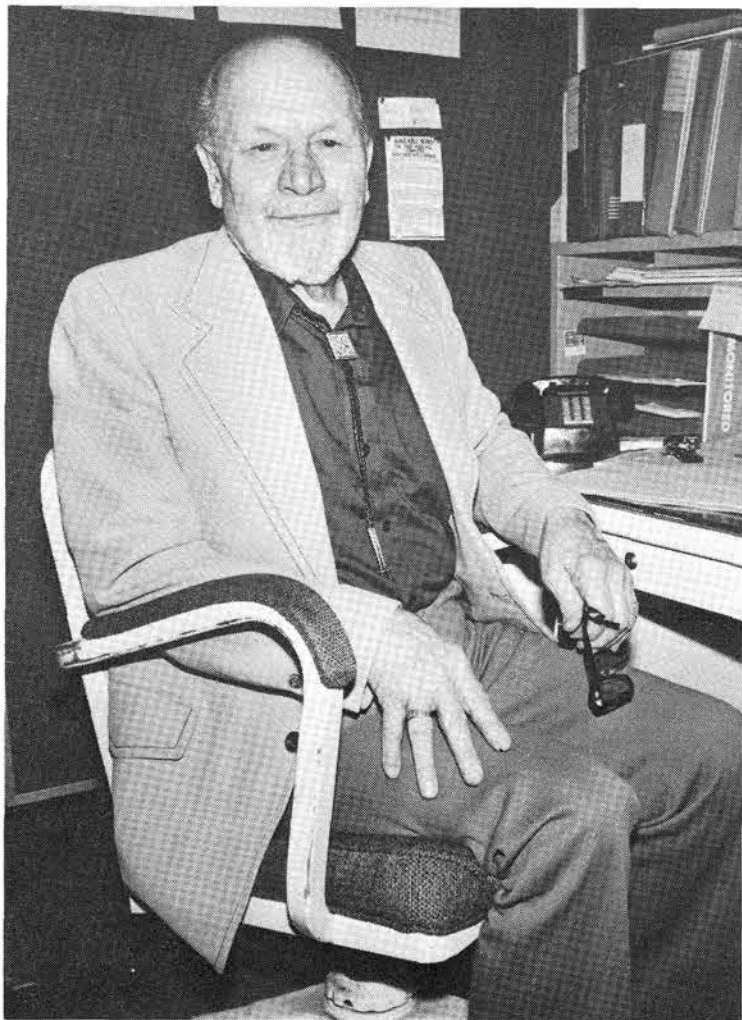
MARCH 1983



Celso Sanchez - 3618 20



Emma Vasquez - 3425 25



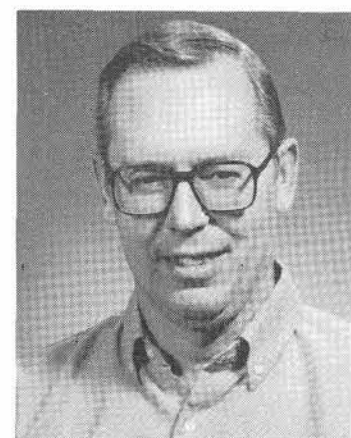
Elmer Borbely - 2626 30



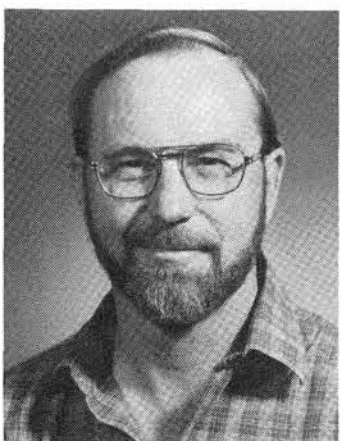
Orville Padilla - 9450 30



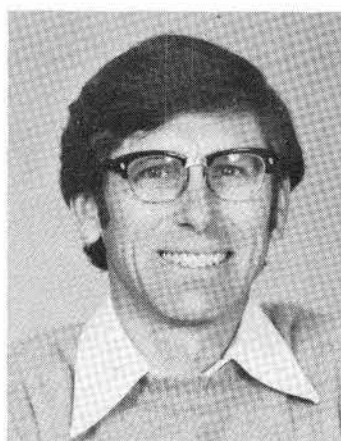
Jim McIntire - 9251 20



Larry Shampine - 1642 15



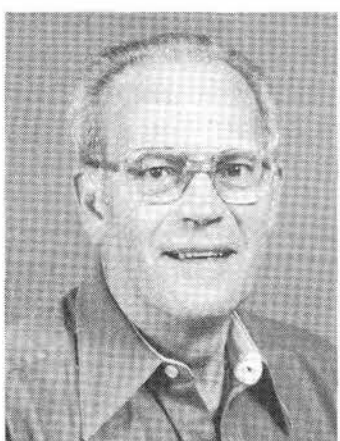
Larry Seamons - 1251 20



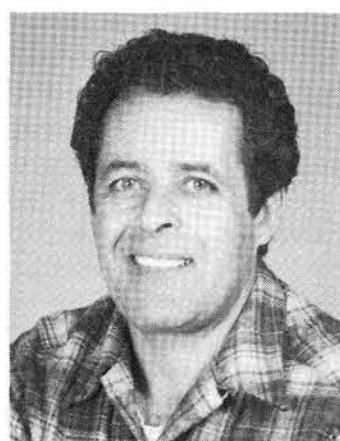
Steve Folkendt - 8261 20



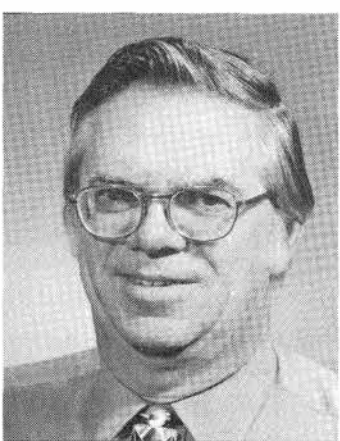
Sherry Bowen - 8265 15



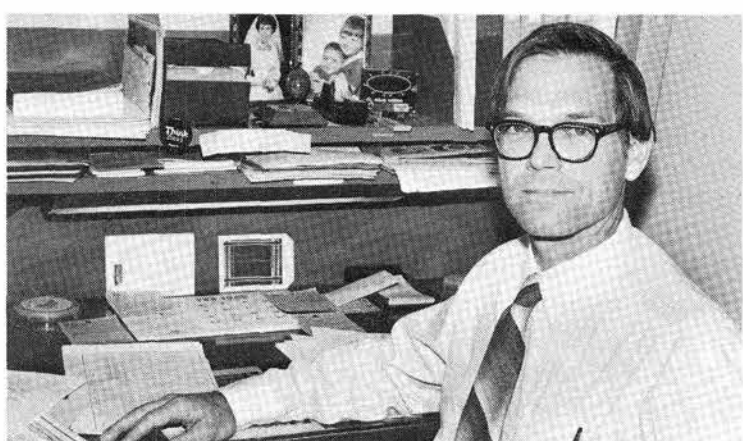
Ort Thomas - 8215 30



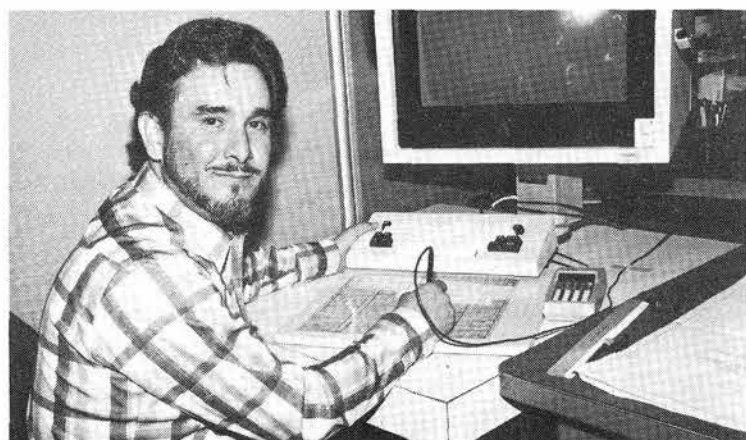
Dick Silva - 8257 20



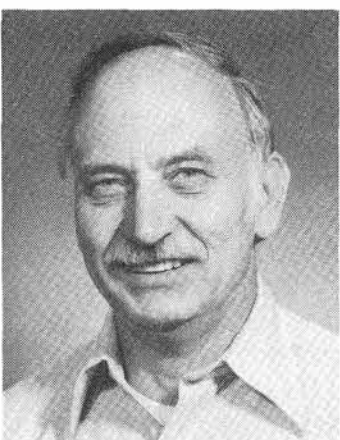
Bob Tomlinson - 7521 25



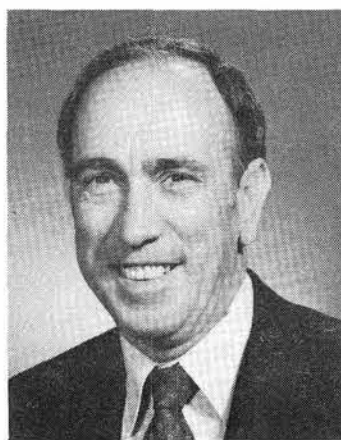
Bill Dawes - 2120 BTL 15



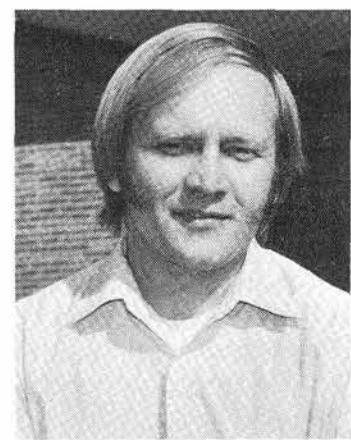
Joe Sanchez - 2457 15



Bob Sallach - 1846 20



Don Stone - 3451 20



Eric Gustafson - 1652 BTL 10

When Terra Firma Isn't

Soil liquefaction, the rapid transformation of an apparently solid mass of soil into a liquified state, was the topic of a recent colloquium presented by Bolton Seed of UC-Berkeley.

Such phenomena can be catastrophic. A 1969 earthquake in Peru dislodged 25 million cubic yards of rock from a mountain. Mixing with soil and ice, this flow slide became a 50-million-cubic-yard avalanche rushing down the Andean slopes at 200 mph. The town of Yungay, over 100 kilometers away, was completely buried along with 20,000 people.

On a far less deadly scale, a Swedish farmer triggered a flow slide while excavating a foundation for a new barn on his lake-side property. He had to watch helplessly as more than 120 acres of his farm slid into the water.

Such flow slides occur with the "right" kind of soil, particularly loose and water-saturated sands. A sudden shock causes the sand particles to shift, in turn moving the water between the grains and turning the soil mass into a liquid. Although earthquakes are the main cause of liquefaction,

other catalysts can be tidal waves, train vibration, blasting, or even shallow excavations, as the aforementioned Swedish farmer learned to his grief. Relatively few areas have soil deposits vulnerable to these phenomena, but where such conditions occur the potential for catastrophe is great.

Seed discussed some of the methods developed in the last 15 years to evaluate the liquefaction potential of soil deposits. Extensive analyses have been made of soil liquefaction in Nigata, Japan, and Alaska, especially at Valdez and Seward after the 1964 earthquake.

"We checked our computer models against the conditions at Nigata," says Seed, "and discovered that liquefaction occurs 20 to 27 feet below the surface. This generally agreed with our calculations. There's been a lot of progress since 1964. We didn't know much about soil liquefaction then, but we can now predict earthquake-induced liquefaction pretty accurately. We're in a good position now to handle these problems from a civil engineering view."

Seed concluded by admonishing civil engineers to "avoid complacency. . . the feel-

ing that something can be built without danger. Nature reminds us from time to time that there are no grounds for complacency."

Smoke Detectors For Homes Recommended

Fire protection engineer Vern Duke (3662) heartily recommends the use of smoke detectors in the home.

"Every home should have a smoke detector in the hallway outside each bedroom group and at the top of stairs. Detectors in each bedroom are desirable," he says.

"If you have only an ionization type, you should add a photoelectric type for its ability to detect those slow-burning, non-flaming fires. A mix of both ionization and photoelectric detectors throughout your home is the best way to go for maximum protection."

Both types of battery-powered detectors, with prices starting at \$12, are widely available.

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

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday. Mail to: Div. 3162 (M0125).

RULES

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

MISCELLANEOUS

- PICKUP CAB, 1975 Chevy, complete including doors & all glass; stereo receiver, turntable w/8-TK, lg. speakers, \$60. Aragon, 294-0225.
- STEREO Nakamichi 700 cassette deck, Rappaport PRE-1 preamp, best offer. Clement, 299-1501.
- RADAR GUN for racing or sports, 12 volt operation, \$100; camera, Pocket Instamatic, electronic eye & shutter, \$50. Johnson, 299-2526.
- CORNER DESK, solid wood w/shelves all around, \$75; 2 end tables, oak, \$150 ea. Doyce, 298-6010.
- WALK-IN SHELL for small truck, long bed, \$500 or best offer. Valdez, 821-1503.
- CUISINART food processor, model CFP9, 5 blades & rack, \$80. Merritt, 821-8806.
- OKIDATA 80 col. 110 cps printer, tractor feed, manuals, \$300. Lanes, 281-2369.
- SINGER port. sewing machine w/case, \$50. Jackson, 293-0988.
- TWO WASHERS, 1 dryer as is, \$10 ea.; crib, mattress, sheets, \$45; dbl. stroller, \$15; baby tub, \$5. Bosque Farms, Byrne, 869-6937.
- QUARTER HORSE COLT, 8 mos. old, training started early, sire-Cat Can Do, Dam - Comet Dee Bar, \$1500. Baker, 294-3334.
- OFFICE DESK & swivel chair w/arms, walnut, new, \$150. Zamora, 897-3792.
- SHOTGUN: Ithaca model 37 pump, 12 gauge, modified choke, case, \$200. Spulak, 255-3006.

COMPUTER, Apple II plus, 48K RAM, integer basic card, two disk drives, \$1400. Lee, 281-5496.

DENON DP60L turntable w/2 tone arms, \$475; NAD 3080 80 w/ch, \$350; Pioneer TX 9800 tuner, \$250. Mills-Curran, 881-2286.

RIFLE, Jager AP74 .22 LR, exact copy of M-16, 15rd. mag, \$165. Healer, 298-6967 after 6:15.

KITCHEN SINK, stainless, hot water heater. McKeever, 299-2777.

SLIM GYM all body exercise system, make offer, cost \$350 new. Arana, 299-1214.

MARTIN GUITAR, D18, hard shell case. Nichols, 296-8259.

PUNCHING BAG MACHINE, coin operated, \$200/week average, \$950 or best offer. Shull, 265-6286.

HEATHKIT SB-610 monitor scope, \$60. Hunter, 294-2877.

SOCCER TEAM garage sale, Sat. March 5, 8:30-4 at 11609 Bellamah NE, for youth player travel expenses. Atkins, 298-5762.

WATER BED, super single, w/pedestal & heater, 2 yrs. old, Koehler, 293-7017.

DISHWASHER, GE under counter, \$100. Walker, 821-5938.

PERSIAN CAT, young female, cream, spayed, all shots, \$50. Anderson, 898-4059 after 2:30 p.m.

CABOVER camper, stove w/oven, gas refrig., heater, sleeps 4. Rodacy, 293-2668.

DOG RUN, chain link, 5' high, 20' long, 4' wide w/gate & top rails, \$50. Gingley, 296-0005.

STEREO; dbl. box springs & mattress; encyclopedia; end table; aquarium; pole lamp; occasional chair. Self, 296-4137.

SLIDE PROJECTOR, Bell-Howell, 300 watt, f3.5 lens, 40 slides per tray, remote control, \$35; trays, \$1.50 each. Houts, 881-0823.

LADIES BICYCLE, royal blue, 3-spd., \$110. Beardsley, 292-5910.

BEAVER electric winch, 12,000 lb. pull, 2-spd. w/mounting kit for Chevy pickups, \$500. White, 877-4149.

KIMBALL ORGAN, double keyboard w/entertainer, 2 yrs. old, orig. cost, \$5500, selling price, \$2750. Banos, 298-0634.

REAR SEAT, gold cloth, for '80 Suburban; misc. parts for 6-cyl. Camaro, etc., circa 1975. Norris, 877-6415.

WHEELS, Ford, 5-hole, 14", 2 ea., \$5 ea. Crowther, 821-0172.

INTELLIVISION video system w/6 game cartridges, \$150. Forsythe, 881-2787 after 5.

AUTO. WASHER; 3 sinks; disposal; bath mirror (lg.); towing mirrors & bar truck mirrors; misc. Phillips, 296-4084.

SNOW TIRES, two sizes; bookcase headboard; ping pong table; southwest paintings by Margaret Mills. Mills, 299-2130.

GOLD COUCH & love seat, reversible cushions, matching corner piece & corner table; 2 chairs (1 swivel rocker), \$600 or make offer. Montoya, 881-6898.

TYPEWRITER, Smith-Corona manual portable, \$40. Hughes, 299-6674.

CONTOUR brand recliner/vibrator chair, celery naugahyde upholstery, \$200. Roelle, 298-4594.

PHONE answering machine, Phone Mate 400-S, w/batteries, \$45. Shunney, 265-1620.

REG. Doberman puppies. Robinett, 344-6507 or 831-0393.

TRANSPORTATION

'78 MALIBU classic, loaded, vinyl top, AM-FM cassette, Blue Book \$3875, asking \$3200; Toyota knitting machine. Rexroth, 293-6025.

'74 VW super beetle, air, rebuilt eng., new paint, \$2300. Padilla, 296-3070 after 7.

'77 SCIROCCO (VW), 50K miles, new paint, louver windows, AM-FM cassette stereo, radials, \$4000. Pierce, 883-2719.

'76 VW SCIROCCO, 1.5L engine, 5-brg. head, AC, AM-FM-ST, alloy wheels, 37/25 mpg, low miles, \$2950 (\$500 under Book). Aeschliman, 281-1227.

LADIES 26" bike, 3-spd., Sears Free Spirit, chromed carrier & fenders, \$85 or best offer; '81 Buick Century wgn., diesel, AC, AM-FM stereo, cruise control, new tires, \$6800. Eifert, 299-3847.

10 SPEED, Schwinn Continental II, 27", \$100 or best offer. Edrington, 881-2395.

'76 TRANS AM 400 V8, AT, PS, PB, tilt, new paint. Gorman, 255-4431. INTERNATIONAL pickup, 4x4 V8, PS, PB, HD 4-spd., HD clutch, 21K miles, one owner, \$4250. Dillon, 883-4123.

BMX motocross bicycle, racing type, all accessories, investment \$350, make offer. Arana, 299-1214.

'79 KZ400, windshield, custom seat, \$800. Scott, 294-8627, 256-3435.

'72 PORSCHE 911T, air, mags, new tires, 81K, many extras, \$11,500. VanDenAvyle, 898-6474.

'82 FIFTH WHEEL TRAILER, 24', all options, \$11,000; will take 15' trlr. in trade. Mares, 884-4843.

'69 FORD Falcon, 2-dr., orig. owner, \$757 or make offer. Binder, 299-2937.

'79 DODGE Omni, 4-cyl., AT, AC, new tires, 39K miles, one owner, \$2950. Shelton, 255-8264.

'74 KAWASAKI 750, w/fairing, \$850; roll bar for long wide box pickup, \$125. Erwin, 836-2746.

'73 DATSUN 1200, 4-spd., \$495. Chavez, 298-7142.

'74 TOYOTA Land Cruiser, 4-wd; HD equipment trailer, 20', tongue pull, all steel deck, 3 axle, \$2000 ea. Jones, 255-7924.

'73 VW Bug, rebuilt engine, new seats, 25-28 mpg, \$1650. Morrison, 877-7425.

'78 HONDA 750K, \$1400, w/Bell helmet. Hinkel, 296-8948.

'68 NOVA 4-dr., recent overhaul, new seat covers & battery, \$800 or make offer. Montoya, 881-6898.

'82 BMW R100S, 3500 miles, black w/pinstripes, bikini fairing w/quartz clock & voltmeter, all orig. equip. Letson, 294-6691.

REAL ESTATE

1977 Cameo mobile home, 2-bdr., 2 bath, furnished, 14x72, washer & dryer, lg. deck, adult park, Aztec Village. Apple, 884-0046.

CONCHAS LAKE: 1/3 acre w/12x52 Kirkwood furnished trailer covered concrete patio & boat storage, 8TK AM-FM stereo, storage shed, 100 gal. butane tank, \$11,000. Kubiak, 265-6525.

1978 NASHUA mobile home, 14x70, 2-bdr., 2 bath, lg. LR & kitchen, assumable loan. Jones, 281-1186.

1971 MOBILE HOME, 12x60, Four Hills Park, appliances, AC, shed, covered porch, price negotiable. Ortiz, 293-7565.

1979 14x64 Champion Manatee, assume 12.34% loan, payments \$160.63, \$3000 down, front kitchen 2-bdr., appliances, washer, dryer. Siemers, 296-0651.

2-BDR. condominium w/carpot, private patio, extra storage, landscaping, pool, hot tub, 3 yrs. old, 7 3/4% assumable loan. Stone, 821-7975, 821-8887.

NORTH VALLEY, 2-bdr., 920 sq. ft. on 1/4 acre corner lot, lots of shade, fully fenced. Letson, 294-6691.

2-BDR. & study, 1 bath, many new features, NE, \$43,500, low equity, assumable FHA loan, no qualifying. Turpin, 883-8042.

WANTED

SOPRANO SAXOPHONE, good condition or needing minor repair. Lewis, 883-8454.

ANYONE interested in joining an informal writers group that meets twice a month. Altwies, 292-3884.

USED building toys (Erector set, Legos, Bristle Blocks, Tinker Toys, Lincoln Logs) suitable for children's play. Frank, 242-0273.

AIR COMPRESSOR TANK, 10-15 gallon capacity. Stuart, 299-9190.

'73 WEST MESA HIGH year book. Lewin, 898-2303.

HO scale locos & cars: ATSF, UP, D&RGW marking, nickel silver track & switches, good condition only. Gerstle, 298-7854.

MOVING BOXES & misc. packing & wrapping material. Thalhammer, 298-8521.

ROOM MATE wanted: \$200/mo. + 1/2 utilities, own room & bath, close to work. Levin, 299-0891.

SMALL ELECTRIC chain saw. Jones, 299-4776.

HOUSEKEEPER to clean my house once a week. Chirigos, 255-5172.

PERSONS who witnessed a vehicle-pedestrian accident on F Street near Medical after work on Feb. 9 are asked to call Dave Dolan on 6-0914.

HOUSE TO RENT/sit, March 31 to May 15, 2-3 bdr. and garage, prefer NE heights. Pepping, 299-1291.

WORK WANTED

STUDENTS will deep rake, roto-till, mow, aerate, spring clean-up, light hauling, etc. Tom Edrington Jr., 881-2395, Paul Holt, 294-6928.

SHARE-A-RIDE

SEATS AVAILABLE ON Rio Rancho S.E.C.A. van, alternate \$2.25/day, regular status, \$41/mo. Dubai, 892-5787.

NEED a rider/driver to join 3 others in a carpool from Taylor Ranch starting March 14; work 8-4:30. Norman, 898-5072.

Roast Duck Tonight

TONIGHT, the Happy Hour buffet is your choice of roast duck or veal scallopini served with pasta or rice pilaf, Italian mixed vegetables, and assorted salads. Laney McDonald and his swinging crew (who have been appearing regularly at the EM Club) are on the bandstand providing some lively dance music. The buffet costs \$6.75 and is served from 6 to 8 p.m. Happy Hour prices are in effect from 4:30 until 7:30. The band plays from 7:30 until 11:30.

TOMORROW at Variety Night the club presents a live performance of the Williamson Wuppeteers, a talented duo of youngsters who manipulate puppets, sing, and dance. The movie is Walt Disney's *20,000 Leagues Under the Sea* starring Kirk Douglas, James Mason, and Peter Lorre. This is Jules Verne's classic story of the submarine Nautilus and Captain Nemo. A selection of hot dogs, hamburgers, sandwiches, and pizza will be available at 5; the puppet show starts at 6:15 and the movie at 7. Admission is 50 cents for children accompanied by member/parent.

NEXT FRIDAY, March 11, barbecued ribs top the buffet menu, which is a down-home-style barbecue with corn on the cob, pinto beans, corn bread, and all that kind of good stuff. The tab is \$5.50 for adults, \$3 for kids under 12. Trappy Rubi and the In Crowd plays for dancing.

SINGLE MINGLE '83 happens Saturday, March 12, with the outstanding musical group Spinning Wheel booked for the occasion. Open to all singles, the bash starts at 7 p.m., ends at midnight. There'll be a lot of hors d'oeuvres spread around as well as a lot of good cheer. Cover charge is \$2. As



SINGLE MINGLE '83 — Helping promote the Coronado Club's first singles dance of the year are (clockwise from lower left) Debbie Smith (DOE), Tonimarie Stronach (3152), Dean Carroll (3154), Anna Lujan (2431), and Kevin Linker (3642). Scheduled Saturday, March 12, from 7 to midnight, the bash is also open to all Club members.

usual, all Coronado Club members are welcome to attend, single or not.

CORONADO SKI CLUB meets Tuesday, March 15, at 7 p.m. to elect new officers and board members for the '83-84 season. Social hour, movies, and door prizes are scheduled.

TRAVEL — A few seats remain on both San Diego/Disneyland tours scheduled March 26-March 31 and April 4-9. Visit Disneyland, Marineland, the San Diego Zoo and other attractions for \$328. The price includes airfare, lodging, transfers, local transportation, and admissions.

Now is the time to sign up for the Hawaii

package April 16-24. The price is \$580 if you stay at the Beachcomber, \$652 if you stay at the Outrigger. Only 15 seats are left on this tour.

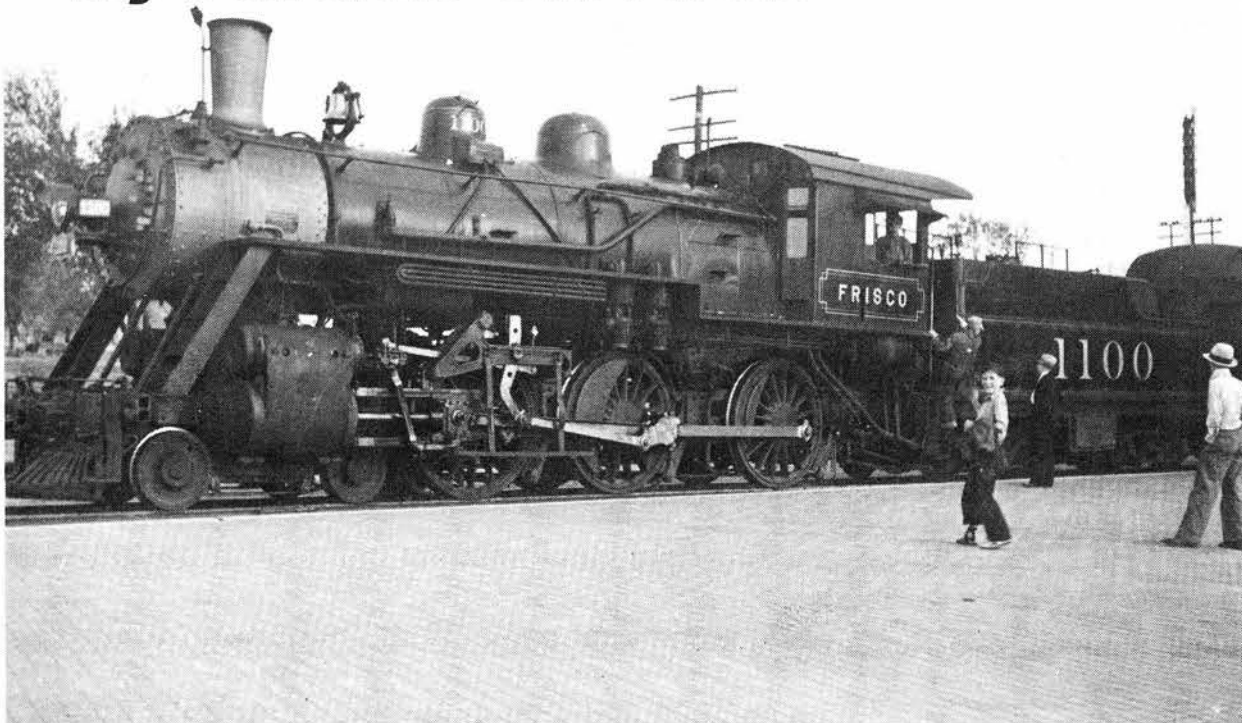
The Caribbean cruise package on the Norwegian cruise ship *Starward* is scheduled Oct. 28-Nov. 5. Cost is \$1095 (double occupancy).

Two DOEans Honored

Presidential awards were recently presented to two local DOE employees in White House ceremonies. Thomas Clark, AL's deputy manager, received a 1982 Presidential Distinguished Rank Award for his role in the management of the AL Operations Office. Clark was recognized for his outstanding leadership and management ability in carrying out his responsibilities at AL, which is responsible for management and coordination of a nationwide research, development, and production program. This is the highest presidential rank award.

Leonard Jacobvitz, AL's chief counsel, received a Meritorious Senior Executive Award, the second highest presidential rank award. He was recognized for his outstanding accomplishments as counsel for AL and its weapons complex, in particular for his contribution to the recent extension of the contract for Los Alamos. Jacobvitz was also cited for negotiating a WIPP agreement with the State of New Mexico.

My Favorite Old Photo



This photo of the old steam engine 510 was taken in Sapulpa, Okla., in 1936. That's my father, Robert Brown, in the cab. He worked for the Frisco Railroad for 30 years, retiring in 1940. No. 510 ran every day between Ada and Tulsa — a morning and afternoon turnaround — carrying local traffic and freight. I collect photos of steam engines now, and this is my favorite. That's me, about 11 years old, in the foreground. — Pierce Brown (9344).



We all know how difficult it is for scientists to obtain their due recognition. I would like to thank you for helping my case by removing the names of my co-authors — Jim Bull and Robert Paxton — from the article "Why some insects look pretty nasty."

— Paul Harvey to *New Scientist*