

Ben Franklin Visits Labs, Pushing Bonds & Maxims



SAVINGS BONDS? Dr. Franklin passes on this Franklinesque advice to LAB NEWS reporter Bruce Hawkinson: "A man may, if he knows not how to save as he gets, keep his nose to the grindstone."

LAB NEWS

VOL. 28, NO. 13

JUNE 25, 1976

SANDIA LABORATORIES • ALBUQUERQUE NEW MEXICO • LIVERMORE CALIFORNIA • TONOPAH NEVADA

First Time

SLL Weapon Uses 'Smart Junction Box'

Now in Phase 3 (engineering development), the B77 is Sandia Livermore's first bomb program in over 15 years. Previously, the Livermore Lab has concentrated on development of warheads for missiles such as the Navy's Poseidon missile or worked on nuclear artillery projectiles.

The B77, a compact thermonuclear weapon in the megaton range, is the most recent bomb being developed for the nuclear weapon arsenal and, as such, it will offer its military users a wide variety of delivery options:

- freefall with radar fuzing for air burst
- freefall with contact fuzing
- parachute retarded with radar fuzing
- parachute retarded with delayed ground burst (laydown)

Each fuzing mode generally has a backup in case of failure of the primary mode. Nine aircraft, representing some five different bomb control systems, will carry and deliver the B77 over a wide range of conditions including Mach 1.2 at 100 ft. and Mach 2.2 at 60,000 ft. Jim Wright of Electrical Systems

Division 8156 works on the B77 program and describes the weapon's many-faceted capabilities as "... a matrix of options. When we learned the degree of flexibility desired by the military in their use of this bomb, that's when we decided to go the microprocessor route."

"A microprocessor," says Duncan Tanner of Electronics Development Division 8159, "is really a kind of thinking machine. It is the heart of the B77 programmer, making the programmer a 'smart junction box' since it interconnects and controls almost all other components in the bomb. It's scarcely as big as my thumbnail, yet we could readily list several dozen decisions the microprocessor in the B77 has to make. Previous weapons also made decisions, in a sense, but most used relays, motor driven switches and similar hardware for that purpose. With a microprocessor based design, the weapon can respond to digital transmissions from the aircraft as well as the traditional 28 volt signals."

(Continued on Page Three)

LAB NEWS was privileged recently to arrange an interview with Benjamin Franklin and an Unenlightened Sandian (US) on the subject of Savings Bonds. (Ben's answers, it should be noted, are direct quotations from his writings).

US: Ben, we're getting the same old story again — buy Bonds, buy Bonds. It's such a pain.

BF: *There are no gains without pains.*

US: I worked hard to get where I am. Don't I deserve a little fun?

BF: *Perhaps you may think yourself in thriving circumstances, and that you can bear a little extravagance. But consider: "For age and want, save while you may; No morning sun lasts a whole day."*

US: Well, okay, but . . . but there are good bargains on some stuff I'd really like to have.

BF: *Many have been ruined by buying good pennyworths.*

US: You mean "don't buy it just because it's a bargain," I suppose. But it's important to dress well — you know, to look successful. And that takes money.

BF: *"Silks and satins, scarlets and velvets," Poor Richard says, "put out the kitchen fire."*

US: Huh?

BF: *"Fond pride of dress is sure a very curse; 'Ere fancy you consult, consult your purse."*

US: I still don't understand . . .

BF: *When you have bought one fine thing, you must buy ten more, that your appearance may be all of a piece; but Poor Dick says, "Tis easier to suppress the first desire than to satisfy all that follow it."*

US: Guess that's true, but it seems to me you always dressed pretty well — at least after you made it.

BF: *'Tis as truly folly for the poor to ape the rich, as for the frog to swell in order to equal the ox.*

US: Got it. But I've already got a little bit tucked away — and it's a long time till retirement.

BF: *"A child and a fool," as Poor Richard says, "imagine twenty shillings and twenty years can never be spent."*

US: True, both time and money go faster than you expect. Can't argue with that. I've known people who work hard for years, yet accumulate little.

BF: *A man may, if he knows not how to save as he gets, keep his nose to the grindstone and die not worth a groat at last.*

US: A man's got to eat . . .

BF: *"A fat kitchen makes a lean will," says Poor Richard. Rather go to bed supperless than rise in debt.*

(Continued on Page Two)

Afterthoughts

The seventy-six Olympic\$--When we asked Dave Saylor (5162), who collects Olympics, how plans for Montreal were going, he replied, "Fine--just laid out \$700 for tickets." "Oh--then you're flying up, not driving?" "No, that's 700 bucks for tickets for the three of us to get in to various events. The opening ceremonies alone are 24 bucks a head." Sounds like our friendly neighbors to the north plan to retire their national debt.

* * *

Can't-win dept.--One of the more depressing documents we've read, and wished we hadn't, comes from the respected National Observer. It reports that one Julia Morton, a scientist funded by the National Cancer Institute, has implicated two of our favorite substances--tea and red wine--in cancer of the esophagus. "The suspect is tannin, a substance plentiful in most tea and in dry red wine," says the article. "I consider anything more than one cup of tea a day to be excessive," says the lady. Her caution doesn't extend to tea drinkers who add milk because "milk binds the tannin." But real tea drinkers would no more add milk to tea than orange soda to good scotch. Happily, there's an out for red winners: stick to US brands because our laws forbid tannin additives that increase dryness.

* * *

Humor, on the run--From a clipping on San Francisco's Bay to Breakers foot race, male runner overheard asking young woman runner, "What's a nice girl like you doing in a race like this?" She: "Let's put it this way, who says I'm a nice girl?"

*js

Supervisory Appointment

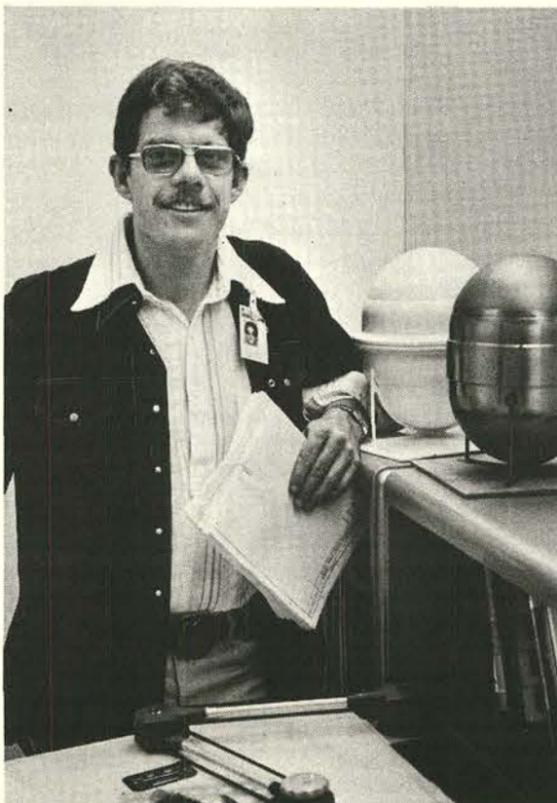
BILL ALZHEIMER to manager of Applied Mechanics Department 8120, effective July 1. Bill joined Sandia in September 1966 as a staff member in the engineering dynamics division performing structural analysis of reentry vehicle dynamic loads. Three years later he was promoted to supervisor of an applied mechanics division. In March 1970 he became supervisor of the W74 project management division, an artillery shell warhead development program. He later supervised the Heat Transfer and Criteria Division and, since February 1974, has been supervisor of Advanced Development Division 4363. This group has been involved in two major programs -- development of an earth penetrator for the

Army's Pershing missile and development of command and control systems.

His new responsibilities include analytical and experimental support for SLL in the area of applied mechanics.

Bill earned his BS and MS in civil engineering and applied mechanics from Montana State University, and his PhD in engineering mechanics from Virginia Polytechnic Institute. He is a registered engineer in New Mexico and is serving as vice president of the New Mexico section of ASME.

Bill and his wife Becky have two children.



Bill Alzheimer

Continued from Page One

Bonds & Ben Franklin

US: Well, but how about taxes? You thought taxation without representation was bad; you ought to see it *with* representation!

BF: *The taxes are indeed very heavy, and if those laid on by the government were the only ones we had to pay, we might the more easily discharge them; but we have many others, and much more grievous to some of us.*

US: Taxes not imposed by some government? What are you talking about, Ben?

BF: *We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and from these taxes the commissioners cannot ease or deliver us, by allowing an abatement.*

US: Ouch, that hurts. You mean I shouldn't take it easy every chance I get?

BF: *Dost thou love life? Then do not squander time, for that's the stuff life is made of.*

US: How about going out for a good time once in a while? You weren't exactly a stay-at-home when you were ambassador to France.

BF: *(After a pause) What maintains one vice would bring up two children. You may think perhaps that a little punch now and then, a diet a little more costly, clothes a little more finer and a little more entertainment now and then can be no great matter, but remember Poor Richard: "Beware of little expenses; A small leak will sink a great ship."*

US: Well, I'm hoping things will get better so I'll be able to save one of these days.

BF: *He that lives on hope will die fasting.*

US: But what good is it to save just a little bit every month?

BF: *Stick to it steadily, and you will see great effects; for "Constant dropping wears away stones, little strokes fell great oaks."*

US: That's true, I guess, but what I really want is to have lots to invest; then I could earn more interest and save more than I can with Savings Bonds.

BF: *"Great estates may venture more, But little boats should keep near shore."*

US: Ben, Ben -- you're going off the deep end. Look, maybe Savings Bonds *are* a good idea: they're something I'm doing for me.

BF: *If you would have a faithful servant, and one that you like, serve yourself. God helps them that helps themselves.*

Sympathy

To Joe Boyd (9351) on the death of his mother in Ohio, June 10.

To Joe Jaramillo (3623) on the death of his brother in Espanola, June 13.

To Larry Tichenor (3622) on the death of his father in Albuquerque, June 17.

LAB NEWS

Published every other Friday

SANDIA LABORATORIES

An Equal Opportunity Employer

ALBUQUERQUE, NEW MEXICO
LIVERMORE, CALIFORNIA
TONOPAH, NEVADA

Editorial offices in Albuquerque, N.M.
Area 505 264-1053
ZIP 87115

In Livermore Area 415 455-2111

john shunny is editor
&

don graham ass't. editor

bruce hawkinson & norma taylor write
bill laskar does picture work

so does russ smith
&

lorena schneider reports on livermore



THE B77 and a few of the Sandia Livermore engineers working on it. Left to right, Ed McKelvey (who holds microprocessor described in article) and Art Hull (both 8159); Ed Williams (8156); and Dave Bray and Jerry Chasen (both 8159).

Continued from Page One

SLL Weapon Uses 'Smart Junction Box'

The 1100 kg (2400 pound) weapon, now in its second year of engineering development, is looked upon as a successor to two earlier weapons. Among its unique features is a two stage lifting parachute system and a roll control device. The parachute system can be deployed over different intervals of time (according to delivery conditions) and can be reefed or disreefed (again according to delivery conditions), all under programmer control. The roll control device operates in one of two modes according to instructions from the programmer: for low-level retarded delivery the roll control is activated to properly orient the weapon, following release, in a vertical plane so that the lifting parachute will actually lift upwards; for freefall delivery the roll control imparts a spin to the weapon for greater ballistic stability. In the latter delivery mode, extensions on the tail fins pop out, again in response to the programmer.

What about the reliability of a component that functions in a nuclear weapon much like a human's brain? Duncan Tanner: "We recognized how absolutely vital this is, and that's why we went the redundant route. There are two programmers, each containing a microprocessor. They 'talk' to each other, and in fact, one unit may decide that the other is out of its mind. But the logic is so articulated that the two units can't go off in totally different directions — ultimately they have to agree." Duncan credits Glen Case (2142) and the logic simulation program which he developed, called SALOGS, for significant help in the complex logic analysis.

The microprocessor used in the B77 programmer is itself a custom large scale integrated circuit. Duncan's people have worked closely with a number of groups in SLA's Microelectronics Directorate (2100) in the development of other components for the programmer. John Heightly's Integrated Circuits Division 2116 designed the digital IC's. Bill Dodson (2116) designed the memory element, based on MNOS (metal nitride oxide semiconductor) technology. The memory is non-volatile, i.e., permanent, even when power is shut down. B.D. Shafer and Wilson Barnard designed the custom LSI's.

Cliff Harris (2131) is responsible for the trajectory sensing signal generator (a second microprocessor application in the B77).

At SLL, in Duncan's division, Ed McKelvey is the programmer project leader. Art Hull handles the roll control electronics, Jerry Cashen generates software for the microprocessor, while Dave Bray is responsible for the hybrid microcircuits and the timer. Bob Miller designed the power supply. In Division 8157 Marv Loll works on programmer structural design problems, and in Division 8156, Ed Williams handles the programmer from a systems standpoint.

Although confident that use of a microprocessor in the B77 will be successful, both Wright and Tanner note that such use is not completely free of problems. In particular, wiring and connections pose a complex assemblage procedure. Nevertheless, they foresee increasing acceptance and utilization of the "smart junction box" approach in other weapons. •js

LIVERMORE NEWS

VOL. 28, NO. 13

LIVERMORE LABORATORIES

JUNE 25, 1976

Supervisory Appointment



Bob Huddleston to supervisor of Applied Mathematics Division 8325, effective July 1.

Bob joined Sandia/Albuquerque in June 1967 in the Systems Analysis Division. In July 1969 he transferred to Livermore's Numerical Applications Division where he has been a consulting numerical analyst and head of the mathematics subroutine library.

Previously, Bob received a BA from Texas Christian University, an MS from the University of Arizona, and a PhD from Texas Christian University, all three in mathematics. Later he did post-doctorate research at the Institute of Fluid Dynamics and Applied Mathematics at the University of Maryland.

A member of the Society for Industrial and Applied Mathematics, Bob's favorite outside interests include downhill skiing, jogging, and sailboat racing. He and his wife Cheri live on Dunsmuir Place in Livermore.

Take Note

One hundred and thirty-seven Sandians donated blood during the recent annual Blood Bank Drive at Sandia/Livermore. This resulted in 72 pints going to the Sandia Blood Bank and 65 to Kaiser Health Care Plan.

Jim Henderson of Training and Benefits Division 8214, who coordinated the drive, extends a special word of thanks to all who contributed. This was the highest number of participants since 1970.

Congratulations

Judy Oliveira (8212) and Ron Hafner (8252), married in Livermore, June 5.

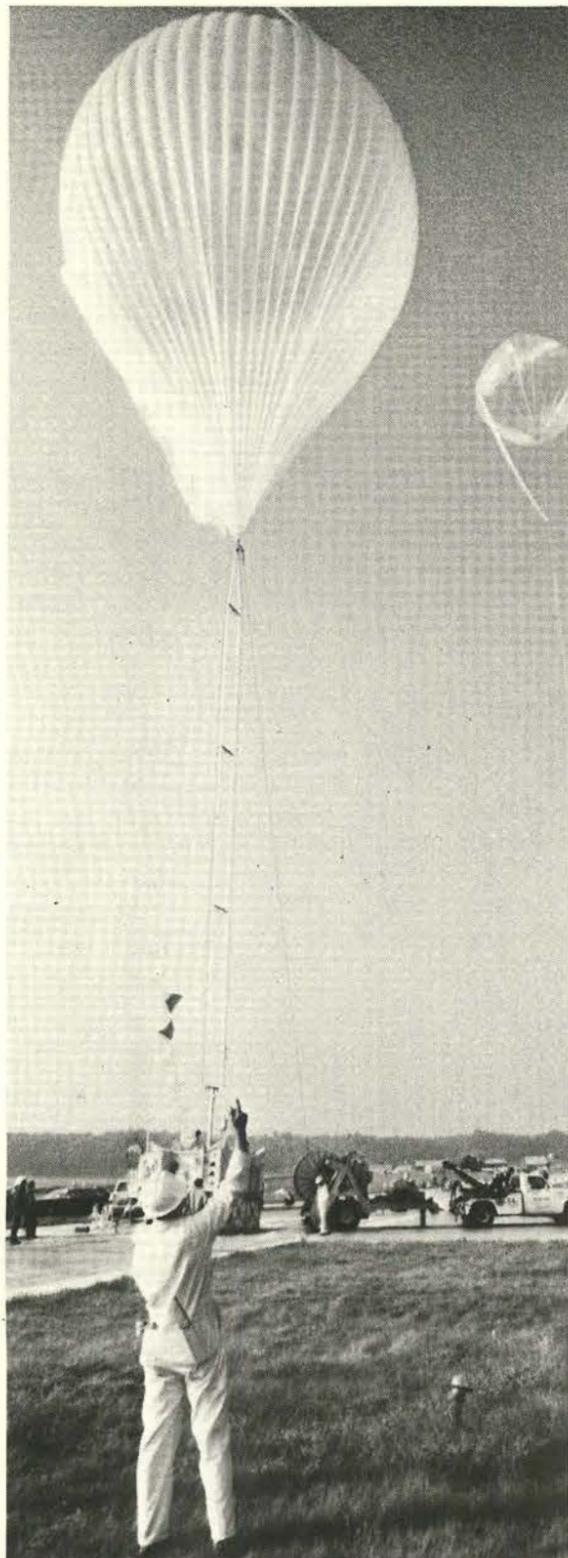
Sympathy

To Helen Bond (8412) on the death of her mother-in-law in Salem, W. Va., May 23.

To Noel Cooley (8181) on the death of his father-in-law in Ephraim, Utah, May 27.

To Les Jones (8183) on the death of his father-in-law in Livermore, May 18.

To Bill Delameter (8112) on the death of his mother-in-law in Pismo Beach, Calif., May 25.



Take Note

Membership discount cards are available to employees who wish to visit Disneyland (California) or Disney World (Florida). The cards entitle you and members of your family to a discount on tickets at either location. The cards are available from Marian Jordan (4252), Bldg. 832, Rm. 75.

* * *

A news release from the city's Environmental Health Department urges pet owners to keep their pets dusted with flea powder in order to kill any fleas that might have been obtained by contact with wild rodents, i.e., rabbits, squirrels, pack rats, etc., or their nests. The request is prompted by two recent cases of human plague in Bernalillo County. If your pets accompany you on outings, the dusting is an especially desirable procedure.

* * *

Tex Ritterbush, head of Medical Administration Division 3321, has been appointed to the board of the National Assn. of Employers on Health Maintenance Organizations (NAEHMO). The association was recently formed to help employers with HMO programs. Tex was instrumental in the development of Sandia's HMO plan in the early 70's.



DA VINCI II at launch and in flight. Balloon undertook 24-hour flight in study of air pollution over St. Louis. Fish-eye lens of camera shows crew aloft; they landed later in an Indiana wheat field.

Manned Balloon Flight

Da Vinci II Successful

On June 8-9, Sandia successfully conducted Da Vinci II, a manned scientific balloon flight to determine how air pollutants change as they move through the atmosphere.

The 15-story-high balloon and gondola, containing four crew members and more than 20 interrelated scientific experiments, lifted off from a small airport near St. Louis in the morning. Twenty-four hours and 10 minutes later, it touched down in a wheat field in southwestern Indiana, near Griffin.

"Of the many balloon flights in which Sandia has participated, Da Vinci II was the most successful," says Keith Smith (1735), the project director. "Normally a scientific balloon flight is considered successful if 80 percent of the systems function properly. In this case, we recorded data from all instruments and met the scientific objectives. From all indications, it was highly successful."

"While it will be months before the last drop of information is wrung from the 100 filter samples, the 50 air samples, and thousands of measurements made during the flight," says Bernie Zak (5443), scientific director, "some conclusions can now be drawn. The path of the balloon and the initial data already demonstrate that, under appropriate conditions, the highly polluted air which builds up over a city can be transported long distances at night with little dilution of a layer well above the ground. The following day, when the upper and lower air are again mixed, these pollutants affect people living one, two or more states away from the pollution sources."

Sandia provided project and scientific direction, systems engineering, data recording, chase operations, gondola recovery and, for the first time, the balloon was launched by Sandia. Launch operations were under the direction of Ed Marsh (1735). Pres Herrington was the project engineer and alternate project director. Bob Gall (3161) arranged for media coverage before, during and after the flight.

Other major participants were ERDA, National Oceanic and Atmospheric Administration, National Geographic Society and Environmental Protection Agency.

Planning a Conference? Community Relations Now Offers Help

Why doesn't Sandia have one person or one organization responsible for planning and coordinating arrangements for official conferences?

Well, now it has. Willie Garcia (3163) recently joined Community Relations to handle this assignment along with other duties.

As arrangements coordinator Willie will provide whatever assistance is desired, including participation in preliminary planning, deciding upon and locating a suitable place to hold the conference, working out physical arrangements, planning for registration and reception of attendees, assisting with visual aids and other special equipment, planning menus and refreshments, helping arrange entertainment for special guests, arranging for transportation, etc.

The growing number of official conferences in which Sandia participates prompted the new service. Having someone take charge of arrangements conserves the time of technical and supervisory people and helps ensure against inadvertent omissions in planning.

Lead time is the key to successful conference planning, according to Willie. Plans are already underway for some meetings scheduled for next fall. Supervisors or staff members who expect to be hosting conferences are invited to call Willie and discuss their plans with him. His number is 4-3931.



Willie Garcia (3163)

Did You Work On the Mk 28?

To commemorate Sandia's Family Day in October, the Information Department 3160 will provide attendees with a 50-page booklet entitled *Sandia: A Picture History*. To indicate the large numbers of Sandians involved in a typical weapons program, one double-page photo will include the Mk 28 weapon surrounded by the people who worked in some capacity on the weapon — design, test, drafting, etc. The picture will be taken July 2; by June 30, call 4-7841 for time and place.

Y'all Come, Bring Friends

Family Day Set Oct. 16

If Family Day '76 isn't a big success at Sandia Labs, Albuquerque, it won't be for lack of advance planning. October 16 is the date and the Steering Committee has already held two meetings.

Ted Sherwin (3160), heading up the activity, has half a dozen subcommittees at work on all facets of the program.

"This will be our big Bicentennial program," Ted said, "and we want it to be an event everyone will remember." Sandia's first Family Day program was held back in 1959, the others in 1966 and 1972.

The third Saturday in October was a carefully chosen date, to take advantage of the normally ideal fall weather and to avoid conflicts with other known activities in which employees might be involved. Previous Family Day programs have been held in the spring. Sandia Livermore's Family Day was held last month.

One big difference in this year's Family Day will be the opportunity to bring personal friends, as well as family members to the Labs. Employees will be asked to list in advance the guests they plan to bring, but they need not be members of the immediate family. The committee is considering a limit on the number of guests one person may bring, to prevent overcrowding.

As in the past, all buildings and separate facilities will be classified as A, B or C (general interest, limited interest, closed) with special exhibits and demonstrations arranged in A areas. Visitors will receive tour route maps and descriptions of facilities in advance to help them decide which buildings they wish to visit.

An all-out effort is being made to clean up and paint buildings and facilities. Each directorate has a representative on the Steering Committee, and that person is responsible for planning and coordinating his organization's participation.

Taking into account Sandia's role in the weapons programs, a special effort will be made to prepare displays and exhibits depicting unclassified activities in current weapons development. Other displays will feature Sandia's energy-related projects.

The Steering Committee is divided into the following working committees:

Plant Preparation: Vern Easley (9753), chairman, Billy Neil (1135), Lou Aragon (3281), Ralph Wilson (3620), Max Newsom (5718), and Gene Harling (9400A).

Security and Safety: Bill Martin (9550), chairman, Jerry Jercinovic (9540), Ivan Moore (1210), Kelly Montoya (2630), Marv Beckett (5245), and Molly Miller (3321).

Tour Planning and Guidelines: Walt Rosenberg (9630), chairman, Bob Wilde (1716), Jim Baremore (2132), Gene Ives (4360), Jack Walker (5420), Ruth Whan (5822), and Dave Bickel (9335).

Community Leaders Preview: Lorella Salazar (212) chairperson, John Ford (2321), Bruce Van Domelen (2523), and Ted Sherwin (3160).

Retiree Participation: Bob Kelly (4211), chairman, John Ford (2321), and Molly Miller (3321).

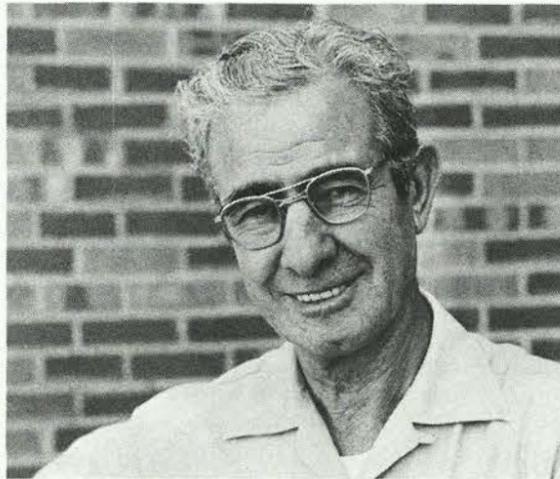
Invitations and Hospitality: Randy Maydew (1330), chairman, Craig Summers (3733), and Emily Young (5163).

Planning coordinator is Willie Garcia (3163).

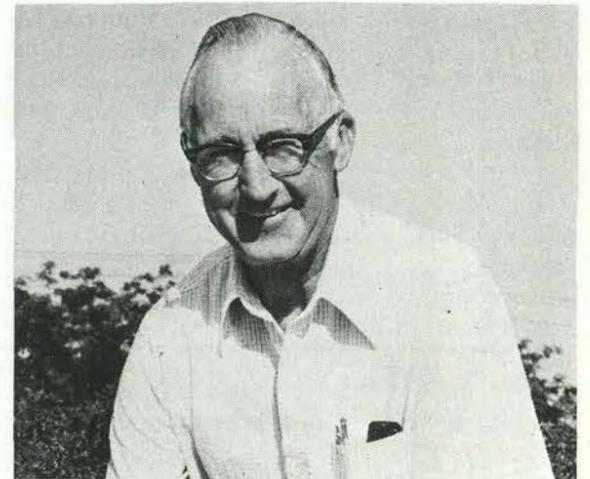


"A MOTORCYCLE POOL is economical transportation," reports Gene Hansen (1715). He and passenger Josephine Arnold (1210) live in Corrales, travel 50 miles (and use a gallon of gas) each day, and have a reserved parking slot. "The sidecar's great," says Josephine, "but I miss the old Police Special Harley I used to have . . ."

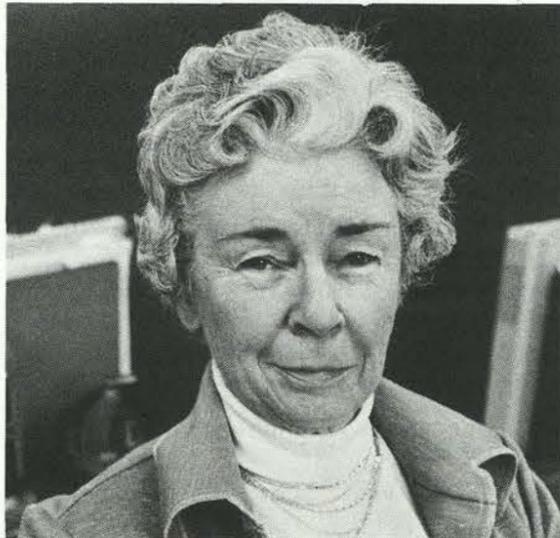
Retiring



Bennie Padilla (9713)



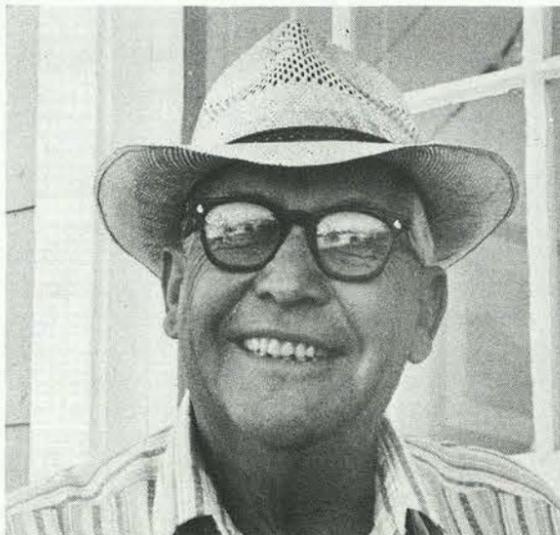
Bill Prekker (3254)



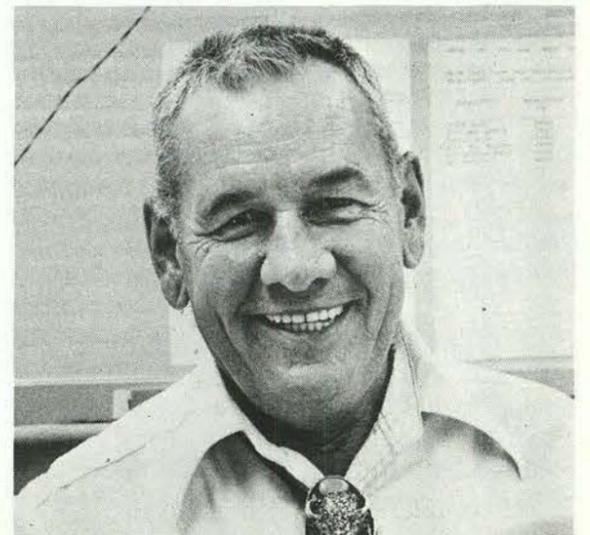
Laurie Krebs (3160)



Maxine Stephens (9551)



Cosme Lovato (9718)



Bill Deely (3282)

feed **back**

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 administrator. The substance of questions and responses of wide interest is published in LAB NEWS.

Q. Since Sandia Labs is so energy aware, why hasn't it put 'C.D.' (Capacitive Discharge) ignitions on its vehicles? As I understand them, you can get a minimum of 10% increase in your mileage and eliminate two out of every three (and sometimes longer) tune-ups, which is where you can really save money through less down time. Organizations such as the Mail Services Section could really benefit since most of their driving is at slow speed, involving starts and stops around the tech area.

A. A Federal regulation stipulates that all government-owned vehicles receive a tune-up at least once each year or 12,000 miles, whichever occurs first. The majority of our vehicles do not travel 12,000 miles per year, thus they receive a tune-up only once a year. Since the average life of our vehicles is seven years, this means that a vehicle receives only seven tune-ups in its lifetime.

Sandia's cost for spark plugs under GSA contract is 20 cents each and ignition points approximately \$1.50, and it takes about 30 to 45 minutes labor to change spark plugs and points.

Sandia has approximately 650 units that could use the CD ignition system at a cost of about \$40 a unit. This would be a considerable outlay of money. Sandia has two units equipped with the CD ignition system for evaluation and to this date we have not been able to see any significant savings.

We do not believe that a change to CD ignition systems would be economical.

R. E. Hopper - 9700

Q. At some companies, the employee-amateur craftsman or artist is encouraged to publicly show his or her skill on company premises. Could we do the same?

A. Community Relations Division, 3163, arranges for the displays in the foyer of Bldg. 802 (and art displays in the Library hallway) and welcomes suitable displays of craft work of employees. Because of the time required, the division is not in a position to sponsor and oversee competition events or juried shows, but would be glad to consider exhibits proposed by individual employees or organizations concerned with art, collections, hobbies, crafts, etc. Limitations of space and display facilities must be taken into account, and Community Relations Division reserves the right to make final decisions as to suitability of proposed displays.

K. A. Smith - 3100

Q. Why can't Sandia Lab News be mailed on Thursday, so that retirees receive it in Friday's mail? There are times I don't get my Lab News until Monday or Tuesday

A. The LAB NEWS is mailed on Thursday to retirees. The editor has a copy mailed to his home in Albuquerque just to check on delivery, and almost every issue is received by Saturday. It would appear that local mail delivery is erratic if your copies aren't received until Monday or Tuesday.

K. A. Smith - 3100

Q. As a new employee (April 1976) with responsibilities for the safety of a new facility, I was shocked to discover the cumbersome Emergency Call System in use at Sandia. It has become fairly general and good safety practice to have a single emergency call number (typically, dial 13) for organizations of the size and complexity of Sandia. Even some cities have this type of system. Dialing this single emergency number connects the caller with an emergency operator (a specially trained, company switch-board operator) who will automatically record the call, ask the caller key questions and patch in all emergency organizations (fire, medical, security, etc.) that may need to respond.

I strongly recommend that Sandia implement a single number emergency call system!

A. A special study dealing with our emergency communications was recently completed by several members of the 1700 organization, at the request of the Emergency Preparedness Advisory Committee. The proposal made by this group as well as an interim proposal made by the Emergency Preparedness Planning Staff are to be referred to management for immediate and future budget consideration.

In the meantime, I suggest you discuss the subject with your division supervisor, who is a member of the Emergency Command Structure, so that he can review with you the Emergency Preparedness Plan that applies in your area.

L. J. Heilman - 9500

Q. If there are four people in a car pool, does each have a parking space? My observation is that certain assigned parking spaces are hardly ever occupied.

A. Only one car-pool space is assigned to four people. If more than one is assigned inadvertently, the additional space will be eliminated when we become aware of it.

Although certain spaces appear to be unassigned, there are many valid reasons for the vacancies. Some of these are due to absences because of vacation, sickness, company or personal business (an hour or a week or more), or the driver may be temporarily working in another location. Periodically, we conduct surveys of these vacant locations and determine the reasons for the spaces being vacant. On occasion we find that the car pool is no longer valid.

If you feel that some spaces are not actually occupied, please contact Security (4-3155) and specify the space locations and/or numbers.

L. J. Heilman - 9500

PAGE SIX
LAB NEWS
JUNE 25, 1976



Staff Openings To Be Announced

Personnel Director Bob Edelman (4200) has announced a new policy under which staff openings will be listed in a new publication, the *Sandia Labs Weekly Bulletin*. First issue is slated for early July. The Weekly Bulletin will be distributed to all employees.

Openings to be announced fall in these employee categories: division and section supervisors, MTS, MLS, MAS, TSA, ESA I and II, and SAT II. Basic principle in applying for an opening is that an employee may nominate himself or herself only on a strictly lateral basis: that is, no promotion or advancement in status accrues to the successful applicant. Thus, a division supervisor could apply for another division slot, or a staff member for another MTS, MLS or MAS opening, or an ESA I for another ESA I job.

Following Bulletin publication, employees who wish to bid on a job will do so by calling a listed number and giving their name and the job they wish to bid on. Two weeks after announcement in the Bulletin, the concerned supervisor will get a list of all bidders from Personnel. Individual bidders selected for an interview will notify their present supervisors. Selection is on the basis of the best-qualified candidate, and that person's name will then be listed in the

Weekly Bulletin opposite the job for which he or she successfully applied.

Separate Bulletins are planned for Albuquerque and Livermore, and openings at one location will not normally be advertised at the other. However, there is provision for exception to this rule should circumstances warrant. In any event, relocation expenses will be considered in any such selection.

Describing the new policy, Mr. Edelman explained that it is on a one-year trial basis and emphasized that not all staff openings will be listed in the Bulletin. Some openings will continue to be filled in the resolution of personnel problems or by recruiting, by persons who are surplus in other organizations, or by the interchange of two employees; moves within a directorate are also excluded. Further, the policy already in effect that permits both lateral and advancement bidding for SAT I, MA, MAS/MLS Trainee and ESA Trainee slots is unchanged. These will also be announced in the Bulletin and no longer will be posted on the Labs' bulletin boards.

Mr. Edelman also indicated that during the first six months after a move made under this new policy, should the employee and/or the new supervisor wish to reverse the move, then the employee normally will be returned to his or her former organization.

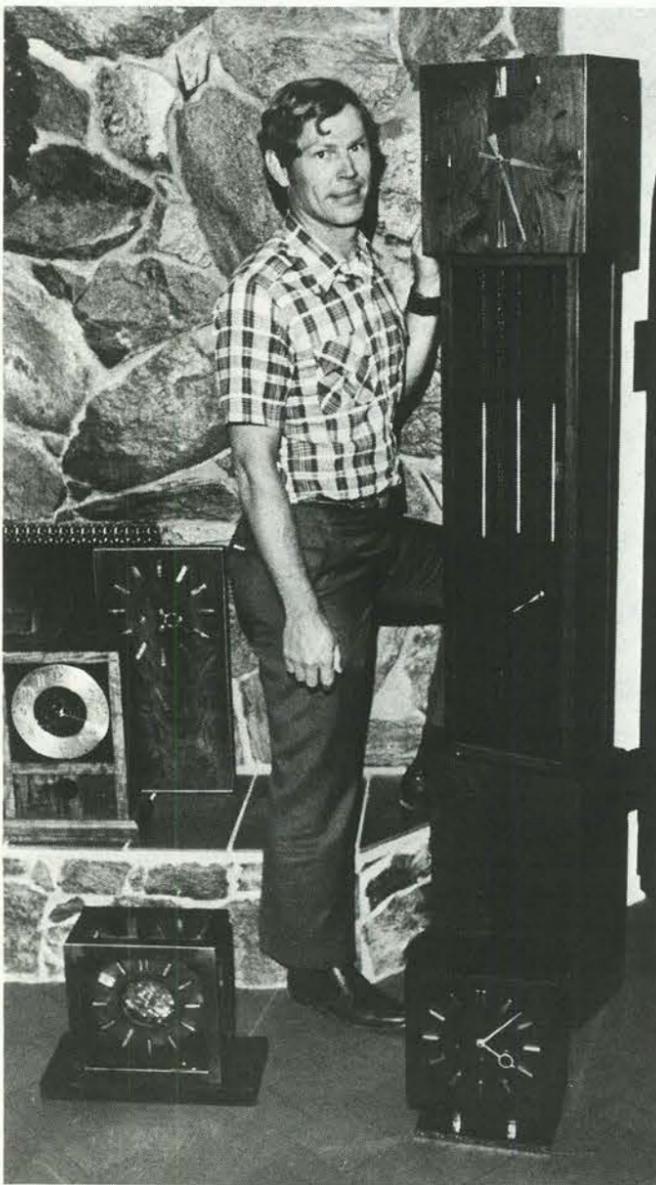
FORD MODEL A, circa 1930, is the latest restoration by Wayne Young (1325) who plans to drive the car to Nashville Aug. 10-15 for the national convention of the Model A Ford Club of America. Wayne spent eight months stripping the car to bare metal, rebuilding and painting it, and upholstering the interior. This is the sixth Model A Wayne has restored. In addition, he's rebuilt a 190 SL Mercedes, a '51 MG TD and a '55 T-Bird.



sandia PEOPLE Report



"HOW TO WIN a One-Year Bus Pass by Guessing When the First New Bus Will Arrive" by George Gleicher (9485). "Pick a significant Bi-centennial date, like Flag Day or Independence Day. Discard the latter because no one's at work. Choose a time convenient for SunTran Director Tom Gore (left) to make the award. June 14 at 1 p.m. is good." It was. Congrats, Sandia Special rider George.



ED KJELDGAARD (2515) gives a preview of some of the contemporary clocks he will show during the New Mexico Arts and Crafts Fair June 25-27 at the State Fairgrounds. Ed buys the clock mechanisms, designs and builds the housings and cabinets. He spends as many as 100 hours on each clock. This is the fourth year he has had a booth at the fair.



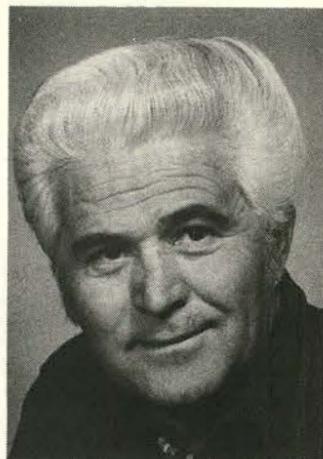
TWO FILMS by Sandia won Silver Screen Awards in recent international competition sponsored by the Industrial Film Festival. "Keep the Door Open" and "Computer Aided Design at Sandia Laboratories" were cited "for outstanding creativity." From left are cinematographers Wayne Gravning and Bill Geck with writer/producer Chuck Cockerleas (all 3153).

MILEPOSTS
LAB NEWS
JUNE 1976



Tony Lopez - 3171

25



Bob Wood - 9533

20



Chuck Riney - 4314

15



Charles Johnson - 9421

20



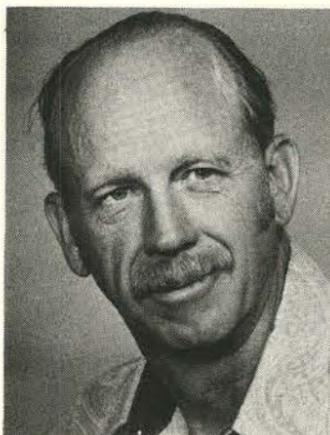
Harold Jeske - 9421

25



Edward Harley - 1285

30



Leon Keck - 5733

20



Elmer Kraft - 3645

25



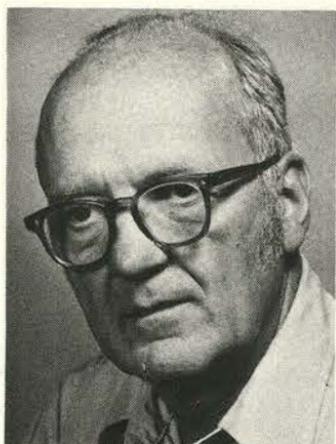
David Larson - 1283

10



John Lloyd - 4362

20



Robert McConkie - 2531

25



Richard Newell - 9526

10



Carol Dauphinee - 9742

10



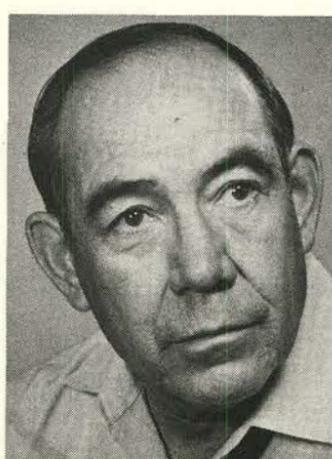
Jesus Romero - 9550

20



Lewis McEwen - 1132

20



Juan Ortiz - 3724

20



Charles Peebles - 3621

10



Frank Lucero - 2631 25



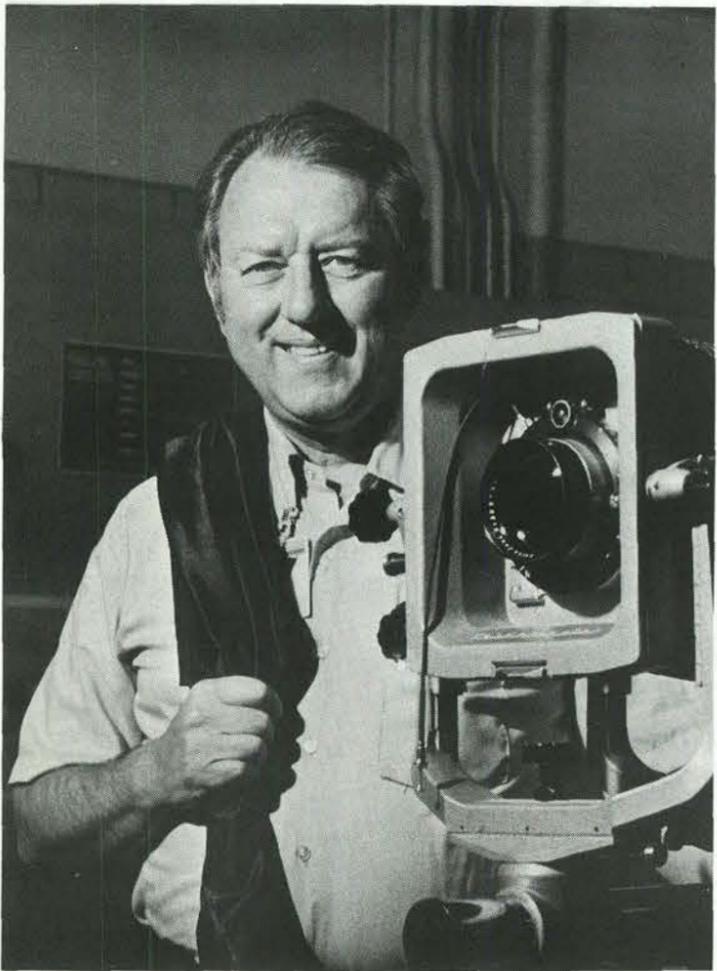
Addison Cockrill - 9473 20



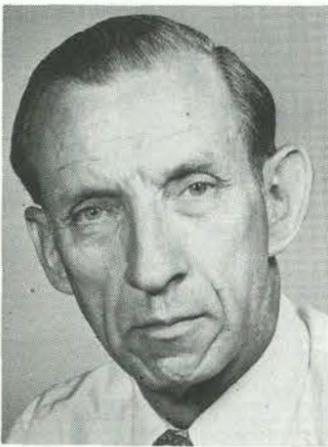
Reuben Montoya - 9553 25



Walt Treibel - 9514 30



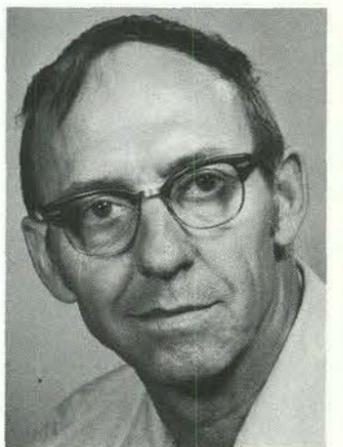
Jim Karo - 9632 30



H. Schildknecht - 2324 20



Rubel Romero - 3172 10



W. Rappleyea - 3644 25



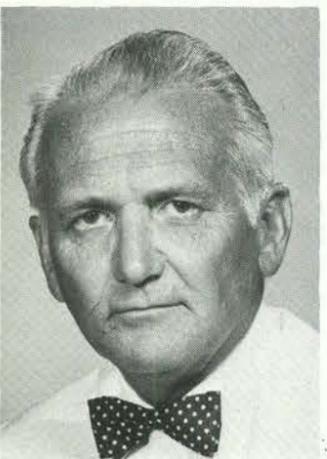
William Burns - 9482 20



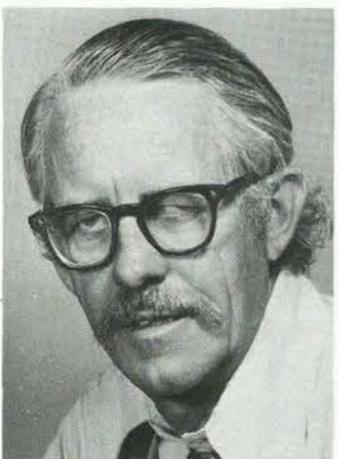
Charles Borgman - 9624 10



Dick Rael - 3733 25



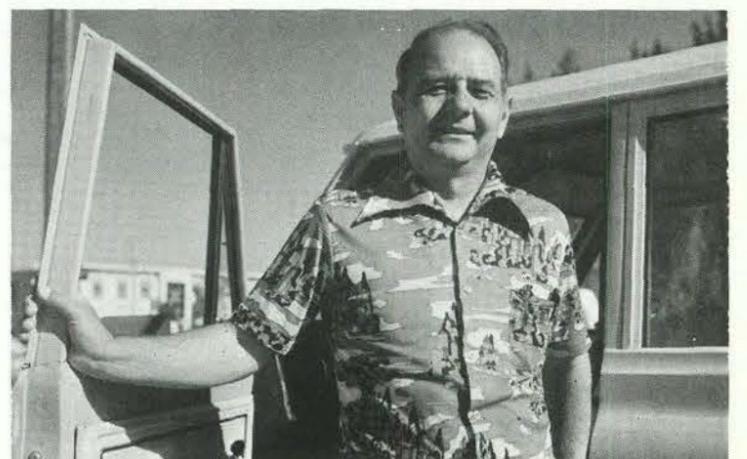
Ted Botner - 1332 20



Gene Copeland - 9343 25



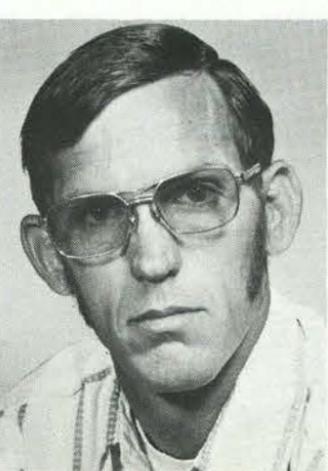
Robert Crain - 2131 30



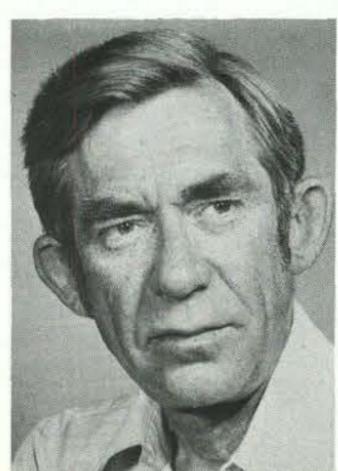
Phil Rogers - 1112 20



Alfredo Pena - 3172 25



Robert Edgar - 5214 10



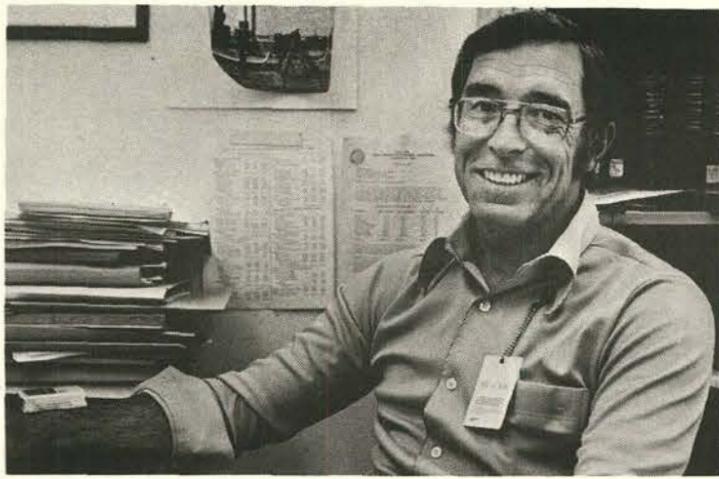
Rollins Howard - 9425 25



Sam Jeffers - 4336 20



Milton Morris - 9524 20



Max Newsom - 5718 20



Tony Shannon - 3647 25



Ren Moore - 1714 25



John Martinez - 3724 25



Robert Hatcher - 3622 10



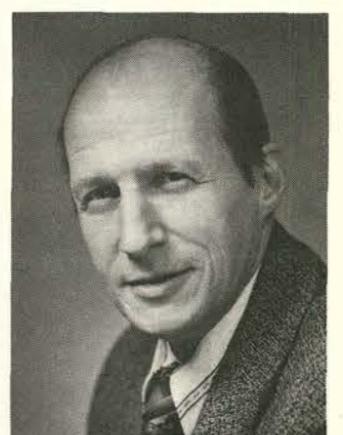
John Jewell - 3621 10



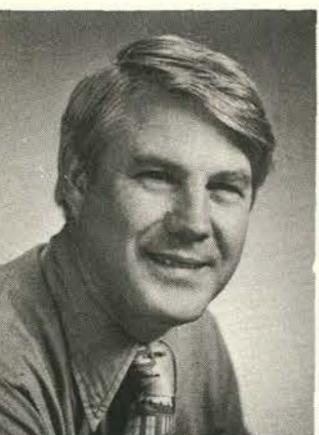
Norm Sinnott - 9485 25



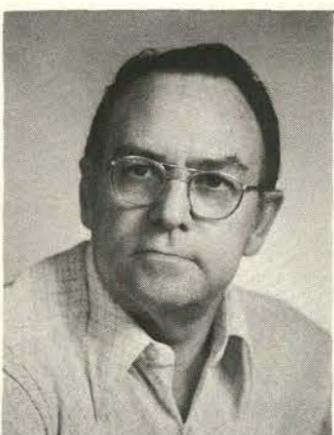
Oliver Davis - 9653 10



John Lenz - 8344 20



Jim Ackerman - 8212 10



Bill Byroads - 8335 15



Ken Henry - 8344 15



Blythe Wemple - 3622 30



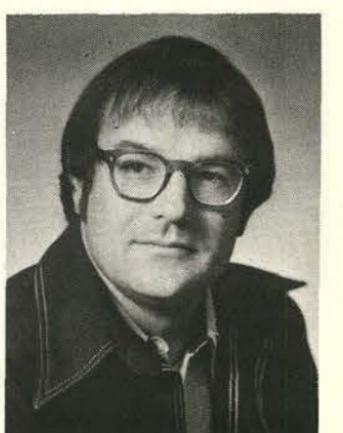
Herschel Rogers - 2135 25



Anna Isham - 8433 15



Ed McKelvey - 8159 15



Dick Houser - 8412 15

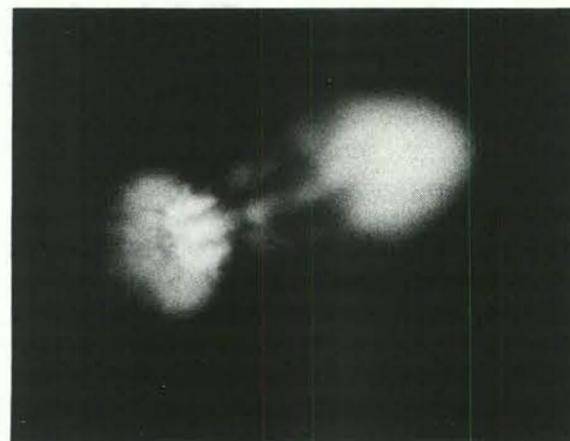
FUN & GAMES

Share-A-Ride — A Sergeant Schrupp of KAFB has organized a ride-sharing program that is aimed primarily at other military people but which Sandians (and their offspring) may participate in. Object is to get drivers who are going to some distant city together with passengers, and vice versa, on a share-expense basis. Send your name, phone, when and where you plan to travel and whether as driver or passenger, to Focus, Stop 38. Deadline for submitting such items to Focus is noon on Tuesdays (for publication that Friday). Sgt. Schrupp's memo indicates that these notices may also be posted on a bulletin board located at the Base Commissary, but the Commissary may be verboten territory for Sandia-types.

A More-Or-Less Bang-Up Fourth — This year's legal fireworks are pretty anemic, at least according to a Bernalillo County release put out by Don Naylor, Fire Marshall. "The device must not extend more than ten feet in

the air when fired; (it) must not travel excessively along the ground when fired; (it) must not make a report louder than a cap pistol." One could say "we've come a long way, baby" — but we'll sure miss the M80's, the cherry bombs and the Roman candles, and no number of sparklers will ever be quite so satisfying.

Biking — A flashing light is more likely to be seen than a steady-state light, so why not use a flashing light on a bike? *Bike World* quotes from a 50-state survey of the legality of such use, stating that while legal in most states "In three states, the use of a flashing light attached to a bicycle is probably illegal: Maryland, New Mexico, and Rhode Island. However, in these three states, it would be legal for a cyclist to attach the flashing light to himself instead of to the bicycle." If you go that route, the article suggests a flashing yellow light — not red or white.



BARIUM CLOUD — Like some ghostly apparition at a seance, this cloud of barium tracer material provided a spectacular display in the sky for early rising Hawaiian residents. Cloud resulted when Sandia rocket, launched from Barking Sands on Kauai, gained predetermined altitude and payload of barium tracer material was explosively scattered. Purpose: studies, by LASL, of earth's magnetosphere and of possible communications effects of striations of ionized barium. Sandians responsible for aerodynamics, rockets, and payload include Herman Wente (1335), John Moyers, Walt Suiter, Dick Teisher (all 1136), Carl Curtis, Ernie Niper, Win Watson and Bill Price (all 1326).

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.

RULES

1. Limit 20 words.
2. One ad per issue per category.
3. Must be submitted in writing.
4. Use home telephone numbers.
5. For Sandia Laboratories and ERDA employees only.
6. No commercial ads, please.
7. Include name and organization.
8. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

MISCELLANEOUS

SLIDING GLASS DOOR, 6 ft. heavy tempered glass, steel frame, all hardware including screen, \$40. Owens, 881-0815.

SECTIONAL, 4 piece, \$90; 2 black swivel bar stools, \$20 ea. Rhoden, 294-6187.

ICE SKATES, girls, size 6, \$20; 2 girls 3-spd bikes, \$20 ea. Mason, 281-3052.

ELECTRIC LAWN MOWER; children's chiffarobe, Westmoreland sterling silver service, George and Martha pattern. Kent, 256-1221.

BACKPACKS, 2, medium size, orange. Rose, 298-4849.

BABY CRIB with mattress, \$35; high chair, \$15. Boyd, 883-2547.

TELEPHOTO LENS, 100 mm, Beseler Topcon, \$75. White, 293-2219.

DRAPES, one pair, sheer, ivory, unlined, 72"x312", custom made, can be cut to fit. Michele, after 5 p.m., 298-8576.

SLEEPING BASKET for small dog, \$2. Arnold, 898-1467.

LAVATORY, white porcelain with faucets, \$15; medicine cabinet, 12"x16" wall recessed with mirror 14"x20", \$5. Price, 265-2327.

DIAMOND RING, 1/2 carat solitaire stone in 14 carat white gold mount, have appraisal, make offer. Randall, 821-0388.

WOOL CARPET, 9'x12'; fencing materials 2"x6" grape stakes with 4x4's. Tolman, 296-8239.

SINGLE DRESSER, \$85; headboard, 54"x60", \$25; regular size mattress springs, \$50; beige studio couch, \$45; misc. Cooper, 299-7157.

POCKET CALCULATOR, Texas Instrument SR-50, \$50; built-in GE dishwasher, \$50. Joseph, 299-6989.

MSR HELMET SHELL, large, never worn, foam tape supplied for custom fit never applied, \$10. Shoup, 299-6360.

AIR HOCKEY, Armac, 6 ft., \$125. Hopper, 292-3059.

CAMPER SHELL, Paris Valley 74, insulated, paneled, for small pickup, 30" high with walk-in type door, \$235. McKay, 256-3911.

GOLF CLUBS, McGregor tourney irons, new handles, 3-9, Wilson 2-iron, putter, all for \$27; fairway bag, \$10. Harley, 898-0594.

CAMPER SHELL off short bed Chevy pickup, paneled inside, fits side-step or fleet side pickup, make offer. Carroll, 266-8926.

FOLDING ATTIC STAIRS, two-fold design, steel handrails, 5 1/2"x16 1/2" steps, \$45. Bush, 281-3773.

AUTOMATIC WASHER, Frigidaire, yellow, \$50. LaFleur, 298-4201.

DRUM SET, 4 piece, extra snare, accessories, \$300. Johnson, 298-4046.

POOL, 18'x4', liner used one year, filter, vacuum, skimmer, etc., \$225. Thunborg, 898-0863.

POOL TABLE with ping-pong table top, accessories, \$45; double bed headboard, \$5; child's desk/chest, \$25; teak coffee table, \$25; Head skis, bindings, \$50. Busby, 299-6450.

AMATEUR RADIO, Heath HW-16 CW transceiver and Heath VF-1 VFO, modified for HW-16, \$95. Anderson, 294-8451.

GOLF CLUBS, cart, \$140; women's beginner clubs, \$60; desk, \$25; butterfly chair, \$12; vented gas heater, \$15. Whitham, 836-1216.

WINCHESTER Model 12, 12 gauge, \$200. Carlson, 242-4493.

STEEL DESK, \$100; dresser, \$25; hollywood mattress, spring, \$20; solid state FM tuner amplifier, \$50; rotary mower, \$45. Schubeck, 294-5666.

PORTABLE POWER GENERATOR, Sears, 115V, 10.8amp, 1 gal gas tank, 12V battery charger terminals, 10 hours running time, \$200. Cover, 881-3860.

PORTABLE TYPEWRITER, Royal Deluxe, \$35; M-W radio phono stereo system, \$40.

Schneider, 299-6243.

TWO 6.50 x 13 TIRES; zippered cover for Vega Wagon cartop carrier; portable record players; Schwinn, for parts; free rabbit. Weaver 299-0245.

TWO A78-13 TIRES, \$25; cartop carrier, \$45. Lee, 294-3002.

SPINET PIANO, mahogany, made by Behning of N.Y., bench included, \$600. McIlroy, 299-4977.

BELT MASSAGER, pedestal, \$20; 4 yds new Herculon upholstery fabric, brown/gold plaid, \$12; "Rosebud" china for 12, \$30. DeVore, 266-6159.

UPRIGHT PRACTICE PIANO, \$200. Bailey, 298-5131.

BATHROOM SINK, Eljer, light yellow, counter top, mount fixtures included, \$30. Souder, 281-3121.

BUMPER CARRIER for motorcycle. Loescher, 296-3154.

TRANSPORTATION

'70 FORD Maverick, 6 cyl., new brakes and steel belted radials, rebuilt engine, 3 spd. transmission, \$900. Martin, 869-2049.

'71 HONDA SL 350, rebuilt, headers, 2 helmets, tools, \$450. Bozone, 294-1127.

'71 CHEVY Vega, 4 spd. transmission, 2 bbl. engine, low mileage, \$750 or best offer. McGarr, 242-2205.

CRESTLINER boat, 18 ft., cabin, 100 hp Johnson outboard, deep V hull, trolling bracket and 5 hp trolling motor, \$2495. Snyder, after 5, 881-3842.

'70 CHEVY half-ton, 250 six, 3 spd. manual, new paint and tires, extra snow tires, \$1650. Jones, 294-4914.

'76 PUCH Enduro 175cc, street legal or race, new in crate, list \$1295, sell \$875. Schulze, 898-2880.

'72 CHEVY Vega hatchback, low mileage, \$1300. Bisbee, 293-0356.

'64 CADILLAC Model 62, 4 dr., hardtop, loaded with extras. Petterson, 299-0164.

DUNE BUGGY, Corvair powered, 4 spd transmission, headlights, oil cooler, dune tires, roll cage, tow bar, Hayes, 299-1157.

'69 SHELBY Cobra GT 500, \$5-500. Reif, 299-4705.

'67 CHEVY 1/2 ton pickup, long wheel base, AT, PS, AC, radio, Rex, 883-7340.

3-SPEED BICYCLE, woman's, Loescher, 296-3154.

'69 TOYOTA, 4 dr, automatic, two new tires, 55,000 miles, \$850. Clarkson, 296-8740.

SKI BOAT, 14 ft., '73 Johnson 50 hp loop charged outboard, tilt trailer, \$1050. Falacy, 881-1802.

SCHWINN Sting-Ray 3-spd bicycle, \$25. Johnson, 298-4046.

'71 HONDA 450, low pipes, windshield, all scrambler (CL) conversion, weather cover, 2 Bell helmets, \$750. Barrett, 299-7284.

'74 MUSTANG II - Mach I, V-6, AM-FM stereo tape player, vinyl top, new tires, \$3200. Ward, 281-5023.

'71 BUICK LeSabre, 4-dr, PS, PB, AC, make offer. Brown, 881-3772 evenings.

GO-KART, '73 Margay Cheeta, 4 wheel brakes, electric starter, battery, \$400. Simpson, 293-7923.

'68 VW bus, 59,000 miles, no dents, new paint, 2000 miles on rebuilt engine, new clutch, \$1595. Gregory, 268-2022.

'74 DATSUN B-210 hatchback; '75 Fiat Sport Coupe, both below book, Perea, 881-8888.

'71 YAMAHA 175 cc Enduro, 2600 miles, adult ridden, helmet and face shield. Mantelli, 298-2603.

WANTED

ALTIMETER, aircraft-type, cheap, for use in auto, need not be flight certified, Miller, 255-7716.

POWER PLANT for motor home, 115VAC, 2.5KW to 5KW, gasoline powered, Onan or similar 1800 RPM quiet type. Anderson, 299-2595.

ELECTRIC KILN and accessories, cone 6 to 10, 5 to 7 cu. ft. Carlson, 242-4493.

ARGUS C3 or C4 in good condition. Harris, 255-6577.

AMPLIFIER for electric guitar, good quality. Esterly, 881-1973.

REMINGTON Model 600, .243 Win. cal. Lewis, 298-6239.

HOUSE TO SIT for 2-3 weeks beginning July 17 for family of four. Moe, FTS (Wash. DC) 7-376-4092.

WORK WANTED

COLLEGE STUDENT needs summer work painting, hauling, maintenance, experienced, dependable and reasonable. Burns, 268-

1306/242-4158.

HOUSE PAINTING, cheap, 1/3 off, will work week-ends and part-time. Apodaca, 299-8515. Hatcher, 266-0932.

BABYSITTING in your home Mon.-Fri. \$1 per hour, in the vicinity of San Pedro and Constitution. Bridegam, 268-5946.

FOR RENT

MOBILE HOME SITE, below Elephant Butte Dam, river frontage, 90'x180', utilities, two concrete slabs, storage shed, fenced. Farner, after 5, 299-6007.

CONDOMINIUM, Purgatory Ski Basin, sleeps 6, kitchen, fishing, hiking, relaxation, Sept-Oct dates available, \$25/night, \$125/week, reservations. Smatana, 299-6278.

3-BDR, office, furnished, large back yard, garden and play area, close to schools, YWCA, park, 1 year lease. Ellison, 296-1721.

REAL ESTATE

3-BDR. HOUSE in Bellhaven on Cul-de-Sac, 1620 sq. ft., 5 1/4% FHA, cash to loan. Ewing, 298-1404.

3-BDR HOUSE, 1 1/2 baths, attached garage, immediate possession, \$30,400, will refinance or large down to 4 3/4% mortgage. Henden, 883-4184.

15 ACRES on paved State Road #542, R.E.A. electricity available, shallow water, mineral rights, \$4,495. Raisen, 298-8022.

1 ACRE mountain land, Forest Lakes Durango, 5 miles to Vallecitos Lake, ski slope, tennis courts, pool, restaurant, lounge. Borgman, 299-6010.

LOST AND FOUND

LOST—Ladies Elgin watch w/turquoise expansion bracelet; black frame sunglasses w/one ear piece missing; men's brown rimmed Rx safety glasses; men's silver-rimmed Rx glasses; silver car key (Ford). Lost and found, bldg. 832, tel. 4-1657.

FOUND—Gold-colored clasp-type hoop earring; Ladies' brown-rimmed Rx glasses; Grafix Unit, ser. #971, Model 284; gold chain and loop w/heishe, 3 pieces coral; gold cross pen. Lost and found, bldg. 832, tel. 4-1657.

●CANARIES ●C-CLUB ●HAPPY BIRTHDAY USA! ●WATERMELONS ●PAUL REVERE ●

FRIDAY	SATURDAY
25 — HAPPY HOUR BBQ SPARE RIB BUFFET Adults \$3.50 Under 12 1.92 UPCOUNTRY Denny In Lounge	26 LOUNGE OPEN
2 — HAPPY HOUR ALL-AMERICAN BUFFET Adults \$3.25 Under 12 1.92 New Mexicords NIGHTLIFERS	3 — HAPPY BIRTHDAY USA! Cocktails @ 6:30 Skits @ 7:30 LA ULTIMA Champagne & Cake (See Text for Prices)

ALWAYS — a good Happy Hour when barbecued spare ribs join *UpCountry* and Denny on the ethereal marquee. Denny's the only guitarist around who can play "Malaguena" with one arm tied behind his back (as long as both hands are free.) It's all at tonight's Happy Hour. Come. Enjoy.

HOLD — lots of time open next weekend for the Independence Day Weekend Events. The first one is the Happy Hour featuring an All-American Buffet (Yankee pot roast, Southern fried chicken that makes Col. Sanders jealous, watermelon, etc.) Then comes an All-American barbershop quintet (inflation affects everything) called the New Mexicords. Finally, it's an All-American danceband, the *Nightlifers*, to make your night, and step, lively.

YOUR — Sandia friends and acquaintances grace the stage on Saturday evening as the various interest groups act out their Bicentennial fantasies (the "true" story of Paul Revere, the C-Club in the days of Coronado, etc.) Then Yolanda's *La Ultima* will play for listening and dancing. The champagne corks pop at 11:30, and the "Happy Birthday USA!" cake slices at midnight. \$4 for member couples, \$3 for member singles, \$5 for guest couples, \$3.50 for guest singles; no reservations necessary.

HEAD — to Pool and Patio on the Fourth of July for a real old-fashioned

downhome Independence Day Picnic. Games for all ages, band music in the park by the Municipal Band (bring your own horn and sit in), dedication of the Club's new flag and flagpole at high noon, picnic lunch (\$1.05), lots of beer and swimming (get wet inside and out). Free to members. 11-6.

HIGH — on your list of Good Things To Do On Wednesdays should be Patio Picnic Night. Put all your eggs (or chicken or okra or whatever) in one basket, and head for swimming, sunsets, and sociability.

USE — the D.O.W. program to discover some new taste sensation. Whiskey Sours are specially priced for the next two weeks.

BOTH — sections of the Mazatlan trip came through! One trip Oct. 24-31, and a second trip, same package, Oct. 17-24. Sandia/ERDA is guaranteed only 30 seats (Mountain Bell and Elks are also in this section), so get to the Club and sign up ASAP. P.S. Still a few openings on the Greece and Caribbean trips too.

HANDS — feet, your anatomy in general (not to mention your mind and pocketbook) will benefit from Outdoors Indoors on the 12th. John Southwick, who learned to hike before he learned to walk, will show-and-tell you all about backpacking: equipment, places, joys, caveats. He's a photographer too, so expect some great celluloid scenery.

IF — YOU YEARN FOR COSMOPOLITAN ISLAND PARADISE, COME TO CANARY ISLANDS SEPT. 23-OCT.1. ECONOMY PACKAGE, DELUXE ACCOMMODATIONS. JOIN ME AT PRE-TRIP MEETING JULY 6. LOVE, BUD.

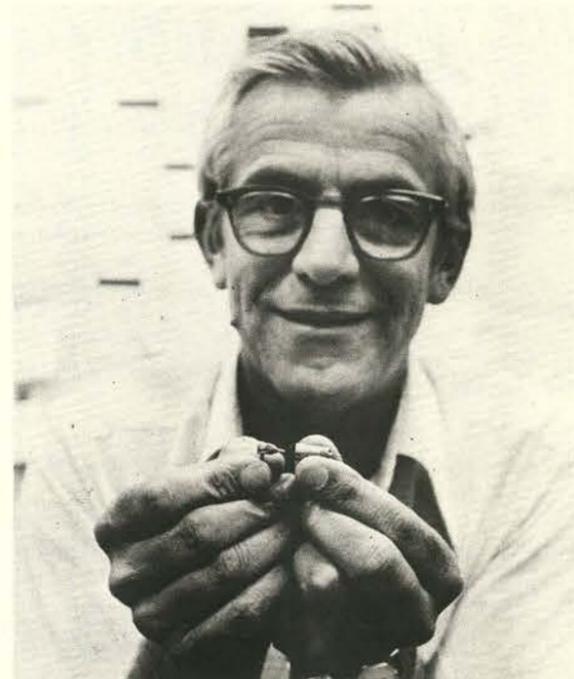
NECESSARY — adjustments in admission to Teen Dances: 50¢ for member teens, \$1 for guests. But they're still about the cheapest way around to dance to bands like *Wren* (if only they were frostbitten, we could bill this as "The Chilled Wren's Hour"). 7:30 to 10:30 on Thursday, the 8th.

MORE INFO — 265-6791.

BACKPACKING ●WREN ●OKRA ●BAND ●UPCOUNTRY

Events Calendar

- June 25-26** — "The Music Man," Albuquerque Civic Light Opera, 344-3217.
- June 25-27** — New Mexico Arts & Crafts Fair, State Fairgrounds.
- June 26** — NM Mt. Club, leisure walk down Cienega, 7 miles, Western Skies, 9 a.m.
- June 26** — City of Albuquerque Public Auction, 5501 Pino Rd NE, 9 a.m., 898-7725.
- June 26-27** — Invitational Top Fuel, Top Gas Bike Championships, Albuquerque Dragway, 242-2868.
- July 1-4, 8-11** — "Rain," Corrales Adobe Theatre, 898-3323.
- July 3** — Fireworks display at UNM Football Stadium, 8 p.m.
- July 3** — Bicentennial Barbecue at State Fairgrounds, 11 a.m. to 2:30 p.m.
- July 4** — "Parade Through History," from Little Theatre up Central, south on 3rd St. to Civic Plaza.
- July 4** — '76 Grand National Motorcycle Race at State Fairgrounds, 1 p.m.
- July 4** — Bicentennial Music Pageant with Alb. Symphony. at UNM Arena, early evening.
- Every Sunday** — Bike rides start at Popejoy Hall, 9 a.m., The New Mexico Wheelmen, must be over 13 yrs., 256-9893.
- Continuing** — Maxwell Museum of Anthropology, UNM "Weavers of the Jade Needle," textiles of Guatemala. Museum of Albuquerque, "Homesteading in New Mexico."



BOB CASPER (2356) displays new miniature high voltage electrical connector recently awarded a patent.

New Connector Awarded Patent

ERDA was awarded a patent recently for a mated pair of miniature electrical connectors invented by Bob Casper of Interconnections Division 2356.

The connectors are used in a weapon application to interconnect circuits for the transmission of high voltage electrical pulses at any pressure-altitude. Small size is achieved by a unique design — the plug recesses completely within the receptacle and is locked in place by spring fingers that snap outward into grooves in the receptacle. The tapered surface of the plug provides increased sealing length for altitude operations when it contacts a gasket in the receptacle.

The mated pair is 15 mm long, 7.9 mm in diameter and protrudes only 3.9 mm from the mounting panel.

Bob has been at Sandia 17 years, primarily in systems development groups before joining the Interconnections Division.



ENERGY SAVINGS

COMPARED WITH USAGE IN BASE PERIOD - JULY 1972 THRU JUNE 1973
CURRENT REPORTING PERIOD ENDING MAY '76

ELECTRICITY	<table border="1"> <tr> <td>BASE PERIOD</td> <td>92276 MWH</td> <td></td> </tr> <tr> <td>1976</td> <td>76190 MWH</td> <td>17.4% SAVED</td> </tr> </table>	BASE PERIOD	92276 MWH		1976	76190 MWH	17.4% SAVED
BASE PERIOD	92276 MWH						
1976	76190 MWH	17.4% SAVED					
STEAM PLANT FUEL EQUIV. OIL	<table border="1"> <tr> <td>BASE PERIOD</td> <td>224583 BBLS</td> <td></td> </tr> <tr> <td>1976</td> <td>195763 BBLS</td> <td>12.8% SAVED</td> </tr> </table>	BASE PERIOD	224583 BBLS		1976	195763 BBLS	12.8% SAVED
BASE PERIOD	224583 BBLS						
1976	195763 BBLS	12.8% SAVED					
VEHICLE MILES	<table border="1"> <tr> <td>BASE PERIOD</td> <td>2468 MI</td> <td></td> </tr> <tr> <td>1976</td> <td>2063 MI</td> <td>16.4% SAVED</td> </tr> </table>	BASE PERIOD	2468 MI		1976	2063 MI	16.4% SAVED
BASE PERIOD	2468 MI						
1976	2063 MI	16.4% SAVED					