



JAMES HERBERT, Executive Vice President of WE and a member of Sandia's Board of Directors, stands between President Sparks and Kent Parsons (1334) who is explaining operation of glove box. Mr. Herbert toured other Sandia facilities as well on his one-day visit.



COMMENDATION — Harold Donnelly, manager AEC/ALO, receives Presidential Commendation for distinguished contributions to nuclear weapons development, production and quality assurance programs. AEC Chairman Dixy Lee Ray is presenting the award.

LAB NEWS

VOL. 25, NO. 7

APRIL 6, 1973

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

'Creativity and the Scientist'

Henry Monteith Science Youth Day Speaker

One hundred outstanding science students from Albuquerque and surrounding community high schools are visiting the Laboratories today as part of Science Youth Days. Yesterday, another group of 100 toured Sandia. The students are visiting the Exhibit Center, Area V reactor facilities, and materials analysis laboratories in Bldg. 805.

Purpose of the program, sponsored in cooperation with the AEC, is to encourage young people to pursue scientific careers.

Henry Monteith of Test Equipment Design Division 9344 is the Sandia Science Youth Day Speaker. He is discussing "Creativity and the Scientist" with the students.

One of the most active members of Sandia's Speakers Bureau, Henry averages several talks a week to groups throughout the city. He is doing this while also teaching a Sandia noon-hour course in relativity theory, pursuing a PhD degree at UNM, teaching a Yoga class Sunday evenings and working on a lengthy paper to be presented in Prague in June. The paper, "Consciousness and Theoretical Physics," will be presented at the First International Congress of Parapsychology and Psychotronics, sponsored by the Committee on Applied Cybernetics of the Czechoslovakia Society for Science and Technology.

Henry is interested in the capability of the



Henry Monteith (9344)

human mind in areas relating to creativity, ESP, and the mind-expanding meditation of oriental philosophies. He combines these

interests with tremendous energy, enthusiasm, self discipline and long hours of study. He's come a long way from the South Carolina farm of his youth.

For the Sandia Speakers Bureau, he has prepared speeches on biorhythm, contributions of eastern religions, creativity, development of latent potentials in children, ESP research in Russia, England and America, new methods of teaching physics, psychology and happiness in human relations, relativity and cosmology, reincarnation, the great pyramid of Egypt, and the human aura as seen by the ancients.

This aura or "halo" is an invisible radiation field surrounding all living organisms, Henry says. The Russians have done extensive investigation of the phenomenon, including photography of the aura, and have labeled it the "Kirlian effect." Henry has duplicated their experiments at UNM and is urging serious investigation into the phenomenon in this country.

"Human potential is being scientifically re-evaluated throughout the world," Henry says. "Olympic athletes are breaking all kinds of physical records of man's performance; mental feats with ESP such as moving objects without touching them have been documented. The Kirlian effect is a fact. Mankind may be on the threshold of a new understanding of man." • dg

Afterthoughts

When It's Springtime (sic) In The Rockies--Well here it is the 2nd of April and the snow is falling furiously and the simple act of getting to work becomes an odyssey. This has been a winter--in 18 years I recall none so severe and unrelenting. At Sandia Peak Ski Area yesterday I noted that you now walk down into a number of facilities that you normally climb up into; the snowpack must average between five and six feet. For once the hyperbole we expect from ski areas begins to approach reality. I prefer the white stuff to the dusters we get this time of year; perhaps you can restrain your enthusiasm over it, but you'll have to concede snow is prettier than dust.

* * *

In The Eye Of The Beholder--Do you realize that under Federal law you can direct the Post Office to cease delivery of any advertising matter that you consider pornographic? And that you have "sole authority and responsibility" to decide what's pornographic? There's a report of one inspired example of what is usually called working within the system in which one man said that he found most of the mail from companies to which he owed money to be "sexually provocative." So the Post Office dutifully stopped sending him such mail. Unfortunately, the bills began to pile up and the companies extracted their due through court action.

* * *

Amen--"To the machines of war, wherever they are--may they rust in peace." Bob Orben *js



ELEVEN O'CLOCK, SIX AND A HALF INCHES, and still falling. LAB NEWS photographer Bill Laskar snapped this out his window morning of The Storm (April 2).

Events Calendar

- April 6-8** — The Mime Experiment — "Nostalgia" (a spoof on silent films), 8 p.m. (3 p.m. matinee only April 8), Highland High School Auditorium.
- April 8** — Sandia Bike Ass'n., bike tour along frontage road to Rio Puerco, meet at Coors Rd. and Freeway, 66 gas station, 10 a.m.
- April 8** — ASUNM Lecture Series, Shirley Chisholm, Congresswoman from New York; former Democratic candidate for President; activist for Black Civil Rights and Women's Rights; 8 p.m., Popejoy Hall.
- April 11** — General Meeting of Albuquerque Arts Council, open to the public, 7:30 p.m., downstairs in Convention Center.
- April 11** — Lar Lubovich Dance Theater, 8:15 p.m., Popejoy Hall.
- April 13** — CBS-TV Network — National

- Geographic Society's television special, "The Haunted West," 9 p.m., KGGM (channel 13).
- April 13-15** — Gem & Mineral Show, Industrial Bldg., State Fair, 9 a.m.
- April 14** — NM Mt. Club, snowshoe/ski hike of Santa Barbara Canyon, Gulf Mart, 7 a.m.
- April 15** — NM Mt. Club, ice/snow climbing practice and instructions, Gulf Mart, 8 a.m.
- April 15** — Sandia Bike Ass'n., bike tour south on Base, meet at Coronado Club, 10 a.m.
- April 17** — Travel-Adventure Film, "By Houseboat, Manhattan to Miami," 7:30 p.m., Popejoy Hall.

LAB NEWS

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An Equal Opportunity Employer

ALBUQUERQUE, NEW MEXICO
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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 writes
as does norma taylor while
bill laskar takes/makes pictures
&
in livermore lorena schneider does all

UNM Names Former Sandian to Post

Don Morrison, professor of mathematics and statistics at UNM, has been named acting chairman of the new Division of Information and Computing Science at the university. Until 1971 Don worked at Sandia and was manager of the Labs' Math and Computing Science Department when he left to teach full time.

A release from the university notes that student demand for computing science courses has soared in recent years, and more than 375 students are now enrolled in the discipline. It is expected that UNM will offer 12 courses through the new division next fall, using the university's IBM 360/67 computer, time-sharing consoles, and remote batch stations. Stoughton Bell, another former Sandian, is among the faculty members who will teach courses in the new division.

Take Note

About 60 Sandians who live in the area of Constitution between Carlisle and Louisiana have responded to a survey asking about their interest in a special bus through the area. Negotiations are underway with the transit company. All those who responded will be contacted as soon as a decision is reached, and a public announcement will also be made.

* * * *

The Labs Chess Club has a new Board of Directors: Bill Andrzejewski (5521), Dirk Dahlgren (4712), and Chuck Hills (5522). The Club meets the first and third Mondays of each month in the El Dorado room of the Coronado Club at 7:30 p.m. On April 16 Warren Miller will give a lecture on "Basic Mates" from 7:30 to 8 p.m. Visitors are welcome.

* * * *

The Del Norte High School Band is sponsoring a spaghetti dinner tomorrow from 5 to 8 p.m. at the school cafeteria. Proceeds will help finance the band's participation in the Four-Corners Fine Arts Festival to be held in Durango, Colo., later this month.

Variable Annuity Unit Value

April	1.763
March	1.833
Average 1972	1.737

Sympathy

To Joe Ferguson (4518) on the death of his brother in Houston, March 9.

Gardening Tips For April

Sandia/Livermore gardener Zell Terry (8257) emphasizes that April is the pivotal month for local gardening. Here are a few of his suggestions:

—remove plants killed by winter freeze

—complete fertilizing and mulching work

—set out new plantings, including annuals, perennials and bulbs planned for continuous color later on; get planter boxes started

—prune shrubs such as flowering peach, quince and cherry after blooming is completed

—spray roses for aphids and gladiolus for thrip; deal ruthlessly with twig borers in juniper (see LAB NEWS, March 9)

—plant new lawn or repair present lawn; Zell prefers "the finer seed, mostly blue grass"

—control lawn fungus; "Actidione thiram is good," he notes, "and I use chlorodane for lawn moth or sod web worm"

As a final bit of advice, Zell says "Get a vegetable garden started — one of the best ways I know to beat the cost of living. For loosening the soil, use a redwood mulch."

Teachers Needed for NSSF Summer Enrichment Program

Do you have a specialty or hobby you'd like to share? Livermore's Nursery School Scholarship Fund, one of the local organizations supported in part through Sandia's LEAP program, is currently recruiting volunteer teachers for its Fifth Annual Summer Enrichment Program.

Designed as a community service, the program's goal is to bring enthusiastic and knowledgeable adults into contact with students, who may be either children or adults. Main objectives are to provide intellectual enrichment to the students and to raise funds out of which tuition costs are paid to send low income and non-English speaking children to Valley nursery schools.

Last year about 50 classes were offered in various subjects — beginning and advanced knitting, parent education, sailing, remedial reading, ornamental gardening, karate, and opera.

If you are interested in teaching a course during this year's summer enrichment program, contact Judy Loughheed, phone 443-1384, or Carol Bowen, 447-8460.

Speakers

Ray Mar (8314) and N.D. Stout (LLL), "Enthalpy Behavior of High Boron Compounds"; Hilary Jones (8314), "Thermodynamics of Liquid Metals"; and Mike Baskes (8314), "Calculation of Equilibrium and Non-Equilibrium Phases for Iron Based Alloys," AEC Conference on Thermodynamics, Dow Chemical, Golden, Colo., Dec. 4-5.

Hartmut Spetzler and Marshall Meyer (both 8314), "An Equation of State of Molten Metals by Holographic and Ultrasonic Interferometry," American Geophysical Union Fall Meeting, San Francisco, Calif., Dec. 4-7.

Bill Ashurst (8354), "Dense Gas Fluid Transport via Molecular Dynamics of Non-Equilibrium Systems," Symposium on Application of Computers to Fluid Dynamic Analyses and Design, New York, Jan. 3.

Bob Setchell (8354), "Shock Strengthening in a Conical Convergent Channel," American Physical Society Meeting, Boulder, Colo., Nov. 23.

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BOB HAUFF (8432) checks out his one and one-half inch scale modified Baltimore and Ohio Railroad switching locomotive.

Steam Is A Gas, Says Enthusiast

Bob Hauff (8432) has been steamed up over steam locomotives ever since he was a boy in Seattle, where he spent a good deal of time watching the steam engines of the Great Northern Railway.

He constructed models then, but it wasn't until after World War II that Bob built his first live steam locomotive: a one-half inch to the foot scale model of a vintage 1909 locomotive he had played with in his youth. Later, he built three Virginia and Truckee Railroad models — scale one inch to the foot. One of these is now on display in the Oakland Museum.

"Steam engines are pretty powerful when you consider that these scale model steamers, with maybe a one horsepower engine, will pull four or five people," comments Bob. "I have one larger model which hauls cars capable of carrying about 20 people."

A member of the Golden Gate Live Steamers, Bob says this Bay Area group thinks it's more fun to ride a scaled-down train on a Sunday afternoon than just about anything else. They've been riding on a quarter-mile track at Redwood Regional Park, but will shift to Tilden Park where a half-mile track should be ready this fall.

Bob is currently developing a steam-powered outboard motor. "I'm not convinced this could solve the controversy between the Valley residents who want a quiet lake at Del Valle Dam and boating enthusiasts who want motor-driven craft there, but when my motor

is finished it will be almost totally silent and pollution free. The burner will operate on clean-burning propane and there won't be any oil leakage, unlike conventional outboards, because the oil system will be recycled completely. It may not be a speed demon, but it will be a lot of fun."

Another of Bob's current projects involves a new type of engine which he expects to test within the next few weeks. "If my idea works, it could be used as a steam engine or, with certain modifications, as an internal combustion engine. As a steam engine, it might be an outboard motor or used in an automobile, bus, or similar conveyance.

Bob has a high opinion of the potential of steam engines in automobiles to ease air pollution. "Pollution-wise, the steam engine is much more efficient than the internal combustion engine," he notes. "Modern technology has improved the operation of steam engines to the point where they are totally reliable, and the Stanley Steamer owner's fear of an exploding boiler no longer applies. In my judgement, if more creative minds were turned loose with money behind them, Detroit could probably turn out a good steam car.

"Even so, I feel electric cars are the ultimate answer, but someone will have to pioneer a breakthrough in the efficiency of storage batteries before they can become a reality." • ls

Authors

W.J. Brya (5132), "Raman Scattering in Ge-Si Alloys," Vol. 12, No. 4, SOLID STATE COMMUNICATIONS.

L. Davison (5131) and A.L. Stevens (5133), "Thermomechanical Constitution of Spalling Elastic Bodies," Vol. 44, No. 2, JOURNAL OF APPLIED PHYSICS.

I.J. Fritz (5132), "Low Frequency Raman Spectrum of Disordered Ammonium Chloride," Vol. 12, No. 4, SOLID STATE COMMUNICATIONS.

P.C. Lysne (5131), "Dielectric Breakdown of Shock-Loaded PZT 65/35," Vol. 44, No. 2, JOURNAL OF APPLIED PHYSICS.

S.T. Picraux (5111), "Ion Channeling Studies of the Crystalline Perfection of Epitaxial Layers," Vol. 44, No. 2, JOURNAL OF APPLIED PHYSICS.

H.T. Weaver (5154), "Nuclear Relaxation Rates for ^3He Adsorbed on Zeolite," Vol. 34, No. 3, THE JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS.

S.T. Picraux (5111) and G.J. Thomas (5522), "Correlation of Ion Channeling and Electron Microscopy Results in the Evaluation of Heteroepitaxial Silicon," Vol. 44, No. 2, JOURNAL OF APPLIED PHYSICS.

P.M. Richards (5132), "Effect of Interchain Coupling on ESR in Nearly One Dimensional Systems," February issue, PHYSICAL REVIEW B.

A.W. Johnson and J.B. Gerardo (both 5243), "Contribution of He^+_{2} Ions in Electronic Recombination in a 300°K Helium Plasma Dominated by He^+_{2} Ions," and "Ionizing Collisions of Two Metastable Helium Atoms (2^3S)," January issue, PHYSICAL REVIEW A.

W.S. Saric (5643), "Nonlinear Stability of a Liquid Film Adjacent to a Supersonic Stream," February issue, JOURNAL OF FLUID MECHANICS.

R.C. Huges (5514), "Bulk Recombination of Charge Carriers in Polymer Films: Poly-N=Vinylcarbazole Complexed with Trinitrofluorenone," March issue, JOURNAL OF CHEMICAL PHYSICS.

R.C. Heckman (5322), "Finite Pulse Time & Heat Loss Effects in Pulse Thermal Diffusivity Measurements," March issue, JOURNAL OF APPLIED PHYSICS.

M.E. Riley (5234), "Impact Parameter Theory Defined as a Constant Collision Velocity Semiclassical Limit of a Complete Quantum Scattering Picture," February issue, PHYSICAL REVIEW A.

H.S. Levine (5324), "Bubble Formation in the Fe-C-O System," March issue, METALLURGICAL TRANSACTIONS.

W.B. Gauster (5325), "Gruneisen Parameters of Germanium Silicon Alloy," March issue, JOURNAL OF APPLIED PHYSICS.

M. Cowan (9320), "Radiation from Explosively Driven Deuterium Arcs," March issue, JOURNAL OF APPLIED PHYSICS.

R.A. Gerber and J.B. Gerardo (both 5243), "Ambipolar to Free Diffusion; The Temporal Behavior of the Electrons and Ions," February issue, PHYSICAL REVIEW A.

J.W. Nunziato (5131), "One Dimensional Shock Waves in a Chemically Reacting Mixture of Elastic Materials," February issue, JOURNAL OF CHEMICAL PHYSICS: Nunziato and E.K. Walsh (Univ. of Florida), "Instantaneous and Equilibrium Gruneisen Parameters for a Nonlinear Viscoelastic Polymer," February issue, JOURNAL OF APPLIED PHYSICS.

G.L. McVay (5154) and A.R. DuCharme (5331), "The Diffusion of Germanium in Silicon," March issue, JOURNAL OF APPLIED PHYSICS.



SNOW is fun. Avalanches aren't. In basins, such as this at Taos Ski Valley, slide hazard is greatest in the gullies just below the ridge line. Heavy ski traffic will stabilize even steep slopes.

Avalanches Are Bad News

The tragic death recently of a young man in an avalanche at Taos Ski Valley is likely to make skiers and snowmobilers wonder if snow slides are yet one more hazard they should be concerned about. Two Sandians, Jack Cyrus (2325) and Jim Manweller (5723), were involved in the rescue operation at Taos in their capacity as Ski Patrollers, and we talked to Jack about the fatal slide in particular and avalanches in general.

"Considering the hundreds of Sandians who ski, both the downhill and cross country types, and the many who snowmobile, some avalanche knowledge is desirable," states Jack. "Statistically speaking, the danger is slight. But just as a sane person doesn't play golf under an electrical storm because of the danger of being struck by lightning, a prudent skier recognizes the elements that add up to 'avalanche'."

What are these elements? According to Jack, these are the important ones:

- a slope angle generally greater than 25°; this would be an "expert" slope in most areas
- fresh and untracked snow
- evidence of prior avalanche activity, e.g., the absence of trees in a steep gully
- high wind (more than 15 mph) within past 24 hours; wind is the primary agent in formation of a slab avalanche, the most dangerous type of slide.

In the Taos incident, each of these elements was present. A Friday storm accompanied by high winds had dumped much new snow on the area. Ski Patrollers used explosives Saturday morning to stabilize avalanche-prone slopes, a routine operation which provides a degree of assurance that a given slope will not slide. "A degree of assurance" are the key words. To provide absolute safety, all steep slopes in a ski area would have to be closed. The victim was skiing down a steep gully when a fairly small slab broke loose at a point above him; the downward tumbling chunks of snow overtook and buried him.

"As slides go," says Jack, "this was not a big one — perhaps a hundred feet across at the bottom. But they don't have to be big to be lethal. Most casualties occur in slides of this magnitude."

Skiers wonder why a person buried under a few feet of snow simply doesn't flail his way out. It's because the snow in a slide becomes highly compacted, very dense, and the buried person — who literally doesn't know which way is up — is physically incapable of working his way out. Besides, he may have suffered injuries during the slide's onslaught.

But suppose you're on a cross-country skiing trip and you have to traverse a slope having avalanche potential. What then? Jack lists these tips:

- if possible, climb and traverse a ridge line rather than the suspect slope
- if this is not possible, cross the slope one-at-a-time watching for cracks which form in the snow with the passage of skis. A crack running several feet ahead suggests slide danger.
- remove wrist straps so that, if caught in a slide, the poles can be dropped and the hands freed to protect the face and to excavate breathing space. You can breathe under snow for quite a long time provided you can break the ice mask which forms as you exhale.
- If a slide starts, head for the woods, or, if too far away, try to outrun it by heading straight down.

Admittedly, this is all a bit grim. But avalanches can be grim affairs. •js



BALLOONS, BALLOONS, we've got 'em, a few dozen choice photos taken by Sandians and displayed in Bldg. 802 foyer. Trosie and Nadine admire the flight.

The Great Camel Caper

On Aug. 17, 1857, a mapping expedition of the U.S. Army entered Albuquerque and caused a minor riot. Horses stampeded, pigs squealed, chickens flew every which way, women and children yelped and ran to hide under their beds, and strong men turned squeamish. Cause of the commotion was a herd of 60 camels carrying the expedition's supplies. They were part of an experiment conducted by the Army to see if the camels could be useful on the American frontier.

The camels were useful — they could go for days without water (up to three weeks), could survive (even gain weight) eating mesquite leaves and the sparse brush of the southwest, could carry twice as much as any mule (up to 570 lbs.), and they could traverse any terrain. A camel's foot is like a huge pad of rubber — it yields on rocks and expands over sand.

The problem was that the typical American frontiersman didn't like camels. They were surly beasts and smelled bad. Besides that, there was the matter of pride. No U.S. Cavalryman would be caught dead on a camel. They were *horse* soldiers. A man

and his horse had a special thing. A horse had personality, could demonstrate loyalty, even affection. Who could love a camel?

The 60 camels that the Army bought were from Smyrna (now Izmir), Turkey. They were purchased in 1856 and brought to Indianola, Texas, and then to San Antonio. Wherever they went, horses and oxen became alarmed at the strange smell.

A number of Army officers had proposed the use of camels in the southwest as early as 1836. The group of 60 was the responsibility of Lt. Edward F. Beale, a 35-year-old engineer whose mission was to map a wagon route from Ft. Defiance in New Mexico Territory to the Colorado River.

The camels traveled due west from San Antonio to the Rio Grande and turned north and west to El Paso where the caravan then traveled up the Rio Grande to Albuquerque.

A dozen camel drivers from Turkey accompanied the group part of the way but decided to return to Turkey since the Army had not paid them for more than a year. (They were eventually paid and returned to Turkey.) One Greek-Turkish camel master



Who could love a camel?

named Hadji Ali who could speak English remained with his camels. His name was eventually changed to Hi Jolly and he became an American citizen.

Deep in Arizona Territory by October 1857, Lt. Beale wrote in his journal:

"It is so universally acknowledged in camp, even by those who were most opposed to them at first, that they (the camels) are the salt of the party and the noblest brute alive, that to mention them at all would only be to repeat what I have so often said of them before. They have been used on every reconnaissance whilst the mules were resting, and having gone down the precipitous sides of rough volcanic mesas, which mules would not descend until the camels were first taken down as an example. With all this work they are perfectly content to eat anything, from the driest greasewood bush to a thorny prickly pear, and, what is better, keep fat on it."

The party finished its mapping job and wintered in the mountains of California. The camels were not disturbed by the snow. Late in January, the expedition made the return trip to Arizona where the command was disbanded.

Lt. Beale returned to Washington and convinced the Secretary of the Army to ask Congress to appropriate money for 1000 additional camels. But the Civil War was imminent and Congress had other worries. The experiment died.

But the 60 camels didn't. They were kept for awhile at Fort Yuma in Arizona and some were scattered at small Army posts through California and Nevada. They were never again put to any significant Army use. Some escaped and wandered for years over much of the southwest and northern Mexico. As late as 1900 there were reports from Arizona ranchers that camels were spoiling range and waterholes. (Cattle would not drink where camels had entered water.)

Hi Jolly served for years as an Army scout during the campaigns against the Apaches. After these events, he operated a successful teamster business in Arizona. He died at Quartzite in 1902 and is buried there under a pyramid taller than a camel's back; and on top of the rocks, in sheet copper, is the silhouette of a camel. • dg



"I LIKE IT," says Connie Rossignol. As research analyst specializing in urban mass transit for the City's Department of Transportation, she read the "Albq Citizens vs Albq Air" series with more than casual interest. "We've somehow got to convince all Albuquerqueans that riding the bus is one of the best ways to reduce air pollution — and enjoy commuting at the same time." (Connie, incidentally, gets the credit for the fancy paint job, carpeting, and stereo on the current Sandia Special buses — they're part of the Winrock-Coronado shuttle on weekends.)



IEEE Meet Set at Sandia April 11-12

Klaus Bowers, vice president 2000, will open the 1973 spring technical symposium of the Albuquerque-Los Alamos Section of IEEE Wednesday, April 11, at 1:30 p.m. Meetings will be held in Theatre Bldg. 815 and are open to the public.

Wednesday afternoon speakers and topics include Dr. Henry Stadler, Ford Motor Company, "Future Automobile Electronics"; Dr. Vic Bolie, UNM, "Biomedical Electronics"; and Dr. Doug Forbes, Magnavox, "Cable Television (CATV)."

Thursday morning sessions will feature Dr. Allan Hill, KAFB Laser Technology Laboratory, "High Power Lasers"; Dan Lee, BART, "Bay Area Transit Authority"; and Dr. Dick Chen, Honeywell Research Center, "Optical Memory Techniques."

Additional information about the meeting is available from Ed Graham (2113), symposium chairman.



Model A Restored by Sandians To Be Raffled To Help Amigos Group

WHAT NRBAM* wouldn't like a Model A? Anyhow, that was the basis of a trunkful of work by Bill Patterson and Wayne Young (both 5716) to bring the before vehicle (left) to this sparkling state. The Model A goes to the winner of a raffle, profits from which will purchase medical supplies for use by the Amigos de las Americas, the teen-age group that annually provides medical assistance — inoculations and the like — to natives of poor villages in Central and South American countries. Raffle tickets are two bucks each (tax deductible) and can be purchased from Bill — the guy in the photos, with Bill Jr., Jim Schirber (5150), and Mel Merritt (9150). Drawing is May 23rd. (*Normal Red Blooded American Male)



Credit Union Reporter



By Bill Prekker
Chairman,
Education Committee

From time to time I'm asked questions about insurance coverage on loans and shares. I'll cover these two subjects and perhaps answer some of your questions.

Borrower's Insurance

Borrowers' insurance (also known as credit life insurance or mortgage insurance) is an insurance policy on the life of the debtor to cover his indebtedness to the creditor: even if the debtor dies, the creditor gets the money due. Most banks and financial institutions charge for this insurance over and above the interest charged on the loan. At the credit

union, the cost of borrowers' insurance is considered part of the operating expenses and is included in the regular interest rates charged on loans.

The credit union carries a group policy with Republic National Life Insurance Company up to a maximum of \$10,000 on the life of each borrower. Any amount of loan or loans over that figure is not insured. As with most credit life insurance, there are limitations (generally, a six-month waiting period) with respect to suicide or pre-existing conditions. Pre-existing conditions involving cancer, urethro-renal conditions, or cardiovascular disease are covered by the insurance company during the six-month waiting period only if no medical care was received or recommended by a physician or surgeon during the three-month period immediately before becoming insured.

Only new loans are subject to the pre-existing conditions. Old loan balances that are refinanced or added to (which have already satisfied the pre-existing condition limitation) are not subject to a new limitation except for that amount which exceeds whatever balance remains on the old loan at the time of death. This means that the old loan balance will be computed at the time of death as if the refinancing or adding to had not taken place.

It should be noted that after the borrower reaches 65, borrowers' insurance no longer remains in effect.

Share Insurance

For many years it was generally assumed that a member's shares in the credit union were insured much as F.D.I.C. insures deposits in a bank. This was not true until a share insurance bill, passed by Congress in 1970, made this insurance mandatory for all federally chartered credit unions. The credit union immediately applied for share insurance coverage and received its certificate of insurance on Jan. 4, 1971. Since that time, shares in federal credit unions have been fully insured up to a maximum of \$20,000 per account. Since our limitation on share accounts at the present time is \$6000 plus accumulated dividends, all shares are completely covered by insurance. The cost of this insurance is also included in the operating expenses of the credit union.

Ah, Spring

"In the spring a young man's fancy lightly turns to thoughts of love," said Tennyson. Many of us New Mexicans, somewhat less romantic, turn our thoughts to fishing, camping, mountains, and recreational activities. This means travel trailers, campers, boats, motor homes, and the like — all of which the credit union will finance. Effective Feb. 1, 1973, interest rates were lowered on all these items so they're the same as rates for automobiles and trucks. We can therefore make you a package deal on a new truck and camper or a new motor home and boat or any other combination, all at one low interest rate. If you're planning to buy a new travel trailer, camper, boat, or recreational vehicle, see your credit union for financing. And take up to 60 months for repayment.

* * *

Credit Union Bulletin Board

Barbecuers Beware! A number of deaths have occurred in the country as a consequence of the use of cadmium-coated refrigerator shelves in barbecuing. The cadmium is released during heating and contaminates the food being cooked. Use only metal grates designed for barbecue use.

Speakers

D.M. Fenstermacher (1441), "Telescope Making," science class, Eldorado High School, Feb. 27.

N.J. DeLollis (5332), "Designing For Adhesives — A Look At Some Key Considerations For Sound Design," Industrial Adhesives Applications — An Engineering Institute, Univ. of Wisconsin, March 6-7, Madison.

R.J. Chaffin (5113), "Radiation Effects on Microwave Semiconductor Devices," Washington Section, IEEE Professional Group on Electron Devices, March 8, Washington, D.C.; "Some Recent Advances

in Microwave Semiconductor Device State-of-the Art," Joint Engineering-Physics Colloquium, NMSU, March 19, Las Cruces.

J.L. Jellison (5533), "Laser Seam Welding," IMOG Joining Subgroup Meeting, Bendix Corp., March 21, Kansas City, Mo.

F.P. Gerstle, Jr. (5314), "Composites As Structural Material," Olin Matheson Materials Seminar, School of Engineering, Duke Univ., March 23, Durham, N.C.

T.H. Martin (5245), "The Hydra E-Beam Machine"; G.W. Kuswa, L.P. Bradley and G. Yonas (all 5242), "Ion Acceleration in Electron Beams," 1973 Particle Accelerator Conference, March 5-7, San Francisco.

R.L. Park (5331) and J.E. Houston (5332),

"Appearance Potential Spectroscopy," Theoretical Physics Seminar, Univ. of Maryland, March 6, College Park, MD.; and ESSO Research Corp. Seminar, March 8, Linden, N.J.

R.J. Baughman (5154), "Single Crystals and How They are Made," Eldorado High School, March 13, Albuquerque.

M.J. Davis (5530), "Surface Control and Its Application to Joining," ASM, March 21, Kansas City, Mo.

J.H. Biffle (1542), "Dynamic Analysis of Elastic-Plastic Axisymmetric Solids," 4th Southwestern Graduate Research Conf. in Applied Mechanics, NMSU, March 23-24, Las Cruces, N.M.

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.
A maximum of 125 ads will be accepted for each issue.

RULES

1. Limit: 20 words
2. One ad per issue per person
3. Must be submitted in writing
4. Use home telephone numbers
5. For Sandia Laboratories and AEC 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

RADIO CONTROL model airplane engine, O.S. max. .20, brand new, \$12. Laskar, 299-1024.

ELEC. RANGE, refrigerator, Fisher, 299-9235.

BEDROOM SET incl. box spring, dark color, 4 yrs. old, \$75 (3 piece); 2 ea. motorcycle helmets, new, \$10 ea., bell type, gold. Duran, 867-5251.

FREE — approx. 50 sq. yds. of lawn sod, you dig it. Dieter, 255-8056.

CHILD'S 3-swing set w/slide, \$8. Guilford, 255-6294.

WHIRLPOOL deluxe dishwasher, \$150 (\$269 new); Heathkit 3-channel CB radio w/antenna, \$35; new queen box springs, \$65; dinette set, \$15. Lassiter, 298-2461.

5 15" CHROME rims for Chevy, \$65. Velasquez, 877-6810 after 3.

PUPS ready for new homes, mother is black Labrador. Miller, 281-3189 after 6.

BEDROOM SUITE: dbl. bed, dresser w/attached round mirror, bedside table, no mattress or springs, \$75. Stark, 8212 Pickard Ct. NE, 299-5953.

SEVERAL 35mm cameras: \$15 & up, SLR, \$65; tripods, \$17 up; 30v 10 amp power supply, \$35. Souther, 296-6104.

POODLE CROSS, 75% toy poodle, 2 females, spayed, one silver, one jet-black, 2 yrs. old, make offer. Nelson, 298-0720.

MAN'S left hand golf clubs: 1-5 woods, 1, 3, 4, new Wilson matched; pitching wedge & putter, Power Bilt, reg. shaft, D-2 swing wt., matched, Spalding pro bag, hand cart, \$75. Poole, 298-6025.

FREE fertilizer, horse manure, you haul it. Barth, 345-0172.

GARAGE SALE: electronic equip., dinette set, trailer hitch, tent, monomatic toilet, army cots, World Book Child Craft, chain saw, port. flush toilet, misc. 3212 Georgia NE, Snyder, 268-0679.

INTERNATIONAL MAGS w/mounted tires, 15" with J60 & G78 tires, \$200. Constant, 281-5670.

STEREO head phones, Nova 10, 8 ohms, very comfortable, \$7. Chavez, 256-1087.

6 CHOICE SPACES Sandia Memory Gardens & 5 excellent spaces near Mausoleum in Sunset Memorial Park. How-

ard, 1017 Dartmouth Dr. NE, 255-9489.

'72 ARA slim line auto air conditioner, complete unit, had very little use. Polito, 266-6443.

KAYAK KIT, cost \$85, sell \$50; Marker ski bindings, \$25; Salomon ski bindings, \$25; Salomon toes, \$10; '70 VW sq. bk. Shunna, 265-1620.

SEARS 12 ga. pump shotgun, model 200, 2-3/4 chamber, modified choke. Sanchez, 281-5236.

FRENCH ALPINE reg. buck goat, about 2 yrs. old, has sired 1 doz. kids, good health. Case, 281-3769.

FREE, red cinder landscaping gravel. Calvelage, 298-1560.

BOX SPRINGS & MATTRESS, full size, \$15. Barton, 265-8607 or 299-7912.

SEWING MACHINE, brand new, Morse model 3400 in walnut console, new \$349.95, sell for \$150. Duvall, 299-8744.

35MM PETRI CAMERA, range finder, f1.9 lens, leather case, \$35; 120 size adapter for 4.5 Graphic camera, \$30. Alvino, 255-6339.

BEDSPREADS, twin & King; tablecloths; novel wheelbarrow barbecue; waffle iron. Chandler, 296-3323.

4-HORSE TRAILER, factory made, paid \$2000, will take \$700. Lujan, 243-7484.

RCA COLOR TV, 25"; European Health Spa membership; rowing exercisor. Parisi, 255-2933.

MATCHING WEDDING & engagement rings: never been used, paid \$395, will take \$265. Lujan, 294-4215.

AKC REG. Labrador Retrievers, sell or trade, parents OFA certified, black, 6 wks. old, male & female. Salas, 298-3057.

36" ROUND butcher block dining table, never used & in orig. carton, \$100. Fisher, 266-0376.

GARAGE SALE: April 6 & 7, 1705 Valencia NE, small appliances, gossip bench, radio, bird cage, decorative items, clothes size 12. Cone, 266-6583.

20" 2-spd. ELEC. FAN, \$10; 21" gasoline rotary mower, \$25; 8x10 hooked rug w/pad, \$40. Pinkerton, 255-2505.

SADDLE, 15" Colorado roping, 3 yrs. old, \$150 or best offer. Lynne, 898-5224.

RATS: lg. male rat, cage included, \$3; small female, albino, w/cage, \$2. Schuster, 299-1072.

ELECTRONIC calculator, Heathkit multiply, divide, add, subtract, constant multiply, 8-digit neon display, \$75. Kennedy, 298-4603.

TIRES: set (5) 13/615/S13, Bridgeston Skyway, tubeless, white wall, 1 brand new, 4 w/8500 miles, \$75. Patterson, 265-0660.

EXPANDED DINING TABLE, Saginaw brand, walnut,

closed-compact, attractive 20"x39", 4 15" leaves, table pad included, \$150. Bushmire, 298-1675.

TRAILER HITCH for Mustang; misc. parts for 4-wd Jeep; elec. motor, 1 hp, 3-phase. Westfahl, 298-5087.

'67 FORD/MERCURY manuals, \$7.50; Skillsaw-table w/miter, \$15; pr. saw horses, \$5; spray paint tank, \$15. Banks, 255-2544.

SKIS, Head 360, refinished w/no bindings, \$40. Reynolds, 299-5157.

OLD FASHIONED kitchen cabinet w/roll top, \$25; child's rocking chair, \$3; infant changing table, \$6. Campbell, 268-8445.

LIMED OAK bedroom set, 5-piece, \$120; Tappan cook center, \$75; 36" coppertone range hood, \$8; rollaway bed, \$12. Claghorn, 298-2043, 2732 Alcazar NE.

POLAROID CAMERA, full size model 101, w/flash & carrying case, \$30. Schuch, 298-9924.

2 TELESCOPES, 15x-60x, \$20; 1 35 x 236, \$40; 10 lb. barbell, \$5. Ralph, 299-3384.

19" B&W TV, w/stand & antenna, \$35; 36"x80" wooden screen door w/hydraulic return, \$3; Shetland vacuum cleaner w/attachments, \$15. Janes, 265-8153.

REAL ESTATE

MTN. HOME w/income, 6 mi. north, Hwy. 10, San Antonio. Drago, 281-3424 after 5.

3-BDR., 1 1/2 bath, lg. den w/fp, 2243 sq. ft. brick veneer, dbl. detached garage & storage, Bellamah Addition. Patterson, 265-0660.

ACRE LOT five miles south of 66 on 217, view, cash or terms. Brown, 296-5949.

TRANSPORTATION

TWO GIRL'S BICYCLES: one 3-spd. Raleigh, \$85; one Sears intermediate size, needs 1 tube, \$15. Hayes, 296-3909.

'71 VW bus, 7-pass., AC, radio, radials, 16,000 miles under warranty. Pryor, 344-2931.

SCHWINN 5-spd. StingRay boy's bike, \$45. Hudson, 296-6978.

'69 CAPRICE 4-dr., fully equipped. Konrad, 299-8994.

'68 CORVETTE convert. w/two tops, air, radials, 4-spd., 327-300, 37,000 miles. Eagle, 265-7128.

'71 FORD Torino Cobra, 429-4V Cobra Jet, 4-spd., \$2295. Marks, 296-8200.

'72 CAMARO V8, AT, PS, vinyl top, \$2600. Clem, 296-5204.

DIRT BIKES: Honda trail 90, 350 miles, \$375; Yamaha 175cc, 1280 miles, \$485. West, 298-6966.

BOAT, 16', motor 60 hp, trailer included, \$500. Iverson, 869-2675.

'59 CHEV. wagon. Priddy, 298-8912.

'69 SILVER STREAK TRAILER, AC, w/w carpet, forced air heat, awning, trunk, built-in jacks, monomatic toilet,

tandem axle, \$4800. Asturias, 299-1175.

'65 CHEV. 3/4 ton pickup w/10 1/2' camper, 4-spd., sleeps 6, lots of extras, \$1500. Guerin, 299-4677.

'63 FORD Country squire wagon, PS, PB, AC, AT, radio, \$275. James, 298-0709.

'64 GMC 3/4 ton truck, 45,000 miles, AC, w/'66 10 1/2' Open Road camper, monomatic toilet, elec. pump. Miller, 268-5992.

'69 PONTIAC Catalina 4-dr. HT, air, power. Uhler, 299-8271.

MOTORCYCLE, 50cc Benelli street bike, w/2 helmets, \$100. Scheiber, 299-4743.

'65 DODGE Coronet 4-dr., AC, AT, 318 engine. Overbury, 255-7788.

'73 INDIAN MINI BIKES; '72 Puch. 175cc, \$850. Chavez, 294-6600.

RACING GO-KART, McCulloch 91B, disc brakes, \$250. Walker, 299-9425.

'70 HONDA motorcycle, CL 350 street, stored for over a year w/3850 miles, adult ridden, elec. start, etc., \$625. Singleton, 299-1613 after 5:30.

'69 DATSUN 1600 convert., 45,000 miles, \$950. Gallegos, 877-4290.

'67 MUSTANG HT, AT, AC, PS, console, luggage rack, adj. steering wheel, \$1150. Sweet, 281-3652.

10-SPD. GIRL'S SCHWINN Varsity bicycle, '72 model, generator, light, front & back racks, \$90 or best offer. Baca, 243-4371.

'72 SUZUKI 250 motorcycle, combination dirt/street bike, less than 1000 miles, \$725 includes \$35 Bell helmet. Banos, 298-0634.

MINI BIKE, Wards model GIL 13976A, 4 hp, Tecumseh engine, used 8 hrs., new stickers on bike, yellow, helmet included, \$175. Allen, 296-6453.

'62 PONTIAC Catalina, PS, PB, AT, \$250. Fite, 255-6943.

LADY'S 26" Schwinn bike, \$35; girl's 20" Schwinn bike, \$12.50; trailer mirrors, \$10. Johnson, 255-5427.

'73 DELUXE SCOUT 2, AC, PS, PB, 4-whd, lock a matic, hubs, 2200 miles, list \$5610, sell for \$5000. Tischhauser, 298-1407.

'65 VW, \$350. Beroldi, 266-2642 after 5.

'71 CHEVROLET Vega stn. wgn., radio, air, Positraction rear end, extra pr. tires, \$1650. Davis, 281-3751.

'66 PLYMOUTH VIP Sport coupe, AT, PS, PB, AC, lt. blue exterior, dk. blue interior, \$945. Russell, 11028 Cochiti SE.

'62 MERCURY, radio, AT, \$275. Murfin, 268-9252 after 6.

'52 DODGE TRUCK, 1/2-ton, \$200. Maase, 299-3647.

'66 OPAL KADET stn. wgn., new tires, \$550. Lochtefeld, 296-1326.

GIRL'S 20" bicycle, Sears Spyder type w/banana seat, \$20.

Gentry, 296-5876 after 3.

'71 YAMAHA 250, extras, \$600 or best offer; '67 Simca, needs new motor, \$50 or best offer. Oberst, 299-1224.

'65 DODGE Coronet Custom, 4-dr., 318V8, AT, PS, AC, \$495, see at 1205 Ariz. NE. Connor, 268-9497.

'70 BUICK Riviera, all power, AM/FM radio, tape deck, 22,500 miles, below book. Chapman, 299-3946.

LOST AND FOUND

LOST — Silver & turquoise cross necklace — reward, Citizen's Bank checkbook, keys w/name Francis R. Shipman, LOST & FOUND, tel. 264-2757, Bldg. 832.

FOUND — Man's black leather glove, small beaded coin purse. LOST AND FOUND, tel. 264-2757, Bldg. 832.

WANTED

TRADE antique clock for 12 ga. auto. shotgun or auto. 30.06 rifle. Flowers, 281-3458.

CANOE. Baxter, 344-7601.

OLD phonographs, radios, amplifiers, for junior electronics experimenter. Fisher, 299-9235.

ONE HART CAMARO ski, 205cm, good shape, to complete matched set. Hawkinson, 281-5239.

DONATIONS: cash or flea market goods to help Medical Explorer Scout Post 6 make a trip to Mayo Clinic in June. Scranton, 299-4902.

PANEL TRUCK, good condition, \$700 or less. Pete, 255-4347.

PRE 1957 .22-cal. Colt Woodsman 6-in. barrel. Bennett, 299-7400.

WATER SKIS, ski belts, ropes, ladder; snow skis, boot size 7 1/2. Chandler, 296-3323.

THIRD SEAT FOR 1967-72 Chevrolet Carryall, prefer blue upholstery. Claghorn, 298-2043.

WORK WANTED

BEGINNING piano lessons by qualified high school senior, references available, \$1.50/half-hour. 296-7062.

CARS waxed, protection you can see, hand rubbed & polished, inside cleaned, experienced. David Hubbard, 299-7818.

FOR RENT

MOUNTAIN HOME, 2-bdr. w/fireplace, furnished. Wilson, 281-3225.

FURNISHED 1-bdr. apt., available now at reduced rent, new, deluxe features, convenient location, from \$140. 217 Pennsylvania NE, Apt. E. 266-3955.

'73 MINI-MOTORHOME, Dodge chassis mount, self-contained, many extras, \$25/da., \$150/wk., plus 8 cents/mi. Wetherholt, 299-5736.

FURNISHED APT., no pets, utilities paid. Dodson, 202 San Pablo SE.

Hard Times Party Set April 14

HAPPY HOURS — Tonight, Bob Banks and the trio are on the bandstand while a special creole buffet is spread. Denny Gallegos will appear in the main lounge. Next Friday, April 13, Sol Chavez and the mighty Duke City Brass will play for dancing while a couple of folk singers named Carl and Jerry hold the main lounge. Sicilian food will be featured on the buffet. The following week, Happy Hour will be held on Thursday, April 19. Polynesian food is the buffet feature. One Mile Ahead will be on the bandstand and Denny Gallegos in the main lounge. The Club will observe Good Friday as a holiday.

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SANADO WOMEN will meet Tuesday, April 10, at 1:15 p.m. to elect new officers and view a spring fashion show. Reservations must be made by today with Mrs. George Horne, 296-1416.

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FORGET FORM 1040 and all that at the Club's Hard Times Party Saturday, April 14. The Club's casino will run full blast from 8 to midnight with play money, of course, issued at the door. The Country Images will play for dancing while soup and sandwiches will be available starting at 9 p.m. Door prizes will be given away during the evening and two tickets to the Club's Mexican Fiesta May 19 will be awarded to the best hard times costume. Admission is \$1 for members, \$2 for guests.

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TRAVEL NEWS — The Club announces a new trip to Palma de Majorca starting Sept. 30 which includes a week at the resort city staying at the Hotel Bellver and then moves aboard the RHMS Queen Frederica for a week's cruise on the Mediterranean with stops at Bizerte, Tunisia, Palermo, Naples, Genoa, Cannes and Barcelona. The package price starts at \$649, double occupancy, based on a minimum of 100 making the trip. If 40 to 100 sign up, the price will be \$699. Reservations are being accepted now. Final payment is due at the Club office by July 13. For more details call Bud Wheeler, travel director, ext. 5656.



Marcy Crimmins

Photos by Ray Uhler



ECP RESERVE FUND from 1972, which amounted to \$1306, has been distributed among several UCF agencies to cover specific needs. One such need, a clothes dryer, was purchased for Christina Kent Day Nursery and is much appreciated by staff and children.