



FINE ETCHING — Yon Perras (8414) assembled most of the components of the extreme ultraviolet advanced lithography tool, which he is inspecting here at Sandia/California's Advanced Lithography Facility.

New lab system set to make smallest computer chips yet

Extreme UV lithography aims for 0.1 micron features

By Nancy Garcia

California Reporter

In microelectronics, smaller really is better.

Thus, the semiconductor industry has targeted ever-smaller circuits in its path toward faster computer chips that can pack more memory in less space. Consumers expect increasingly compact, quick, and powerful computers.

But those miniaturization goals make integrated-circuit manufacturers face a task equivalent to painting a thin line with a thick brush. In a recent advance, Sandia and its partners have developed a new laboratory research tool that can print integrated circuit features one-thousandth the width of a human hair (0.1 micron). This is one-fifth the size of circuit features currently found in mass-produced chips. The laboratory-scale advance represents a feat of precision that integrated circuit manufacturers would like to put into production by the year 2007.

The new lithography tool is based on several features:

- Short wavelengths of light (called

"extreme ultraviolet") provide a more narrow "paintbrush" to create circuit features. The features are imprinted on a chip much the way a photograph is printed on paper.

Normally, integrated circuit patterns are reduced by projecting an image through a series of lenses. However, optical lenses don't work with such short wavelengths of light. Instead, the extreme ultraviolet light is reflected with extraordinarily precise mirrors coated with special multilayers. The mirrors' average surface precision must fall within the range of the diameter of a single atom — five angstroms.

- New resists (compounds used to coat the wafer during processing) that

(Continued on page 3)

The mirrors' average surface precision must fall within the range of the diameter of a single atom.

Cooperative Monitoring Center helps Northeast Asian panel on nuclear-free-zone pact

Sandians at the Cooperative Monitoring Center (CMC) on Feb. 20 jumped at the chance to contribute to a Northeast Asian limited nuclear-free-zone agreement.

The CMC hosted a one-day workshop for a senior research panel of security policy specialists from China, Russia, South Korea, and Japan. The panel, working throughout most of February at Georgia Tech's Center for International Strategy, Technology, and Policy, is developing a proposed model agreement for a limited nuclear-free zone in Northeast Asia. The agreement would be "limited" in the sense that at least in the beginning stages of establishing the zone, only certain categories of nuclear weapons would be restricted.

Exploring options

Panel members visited Sandia to familiarize the CMC team with the panel's results and to learn about available technical options for monitoring the proposed nuclear-weapon-free zone.

Hosting workshops to share extensive US monitoring and verification experience and to promote regional

confidence in areas such as arms control, resource management, and environmental restoration is only one function of the CMC, which is sponsored by DOE's International and Regional Security Division and the US Arms Control and Disarmament Agency.

Located in Sandia Research Park east of the Eubank Gate, the CMC is a resource for the US government and international arms-control-

(Continued on page 4)

The CMC promotes communication among political and technical experts.

Sandia LabNews



Sandia National Laboratories

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Compressed workweek pilot running smoothly

Program 'a real morale booster,' but some misunderstandings

A compressed workweek being piloted in organizations 4000, 5000, and 6000 since Feb. 1 (*Lab News*, Jan. 20) is running smoothly. Susan Harty (3531), project leader, says that after one month of pilot participation most employees are responding positively to the compressed workweek.

"I have received over a thousand very supportive phone calls, messages, memos, and electronic mailings regarding the compressed workweek," Susan says. "Overall, the pilot appears to be moving along as expected."

Approximately 75 percent of eligible

About 75 percent of eligible employees in three pilot organizations have opted for a compressed schedule.

employees in the three pilot organizations have opted for a compressed workweek, according to Susan. Most exempt employees participating in the pilot are selecting the 9/80 schedule (working 80 hours in nine working days) and are taking every other Friday off. Of nonexempt employees in the pilot, about half are opting to take every Friday afternoon off, while the other half are choosing to work five 8-hour days one week, followed by four 10-hour days and Friday off the next week.

Rumors and misunderstandings

Susan wants to clear up some misunderstandings about the new program. First, she stresses that participating in the compressed workweek is optional, and employees who do not wish to participate or cannot arrange their schedules to a compressed schedule may continue on the standard schedule. Second, she

(Continued on page 5)



4 Hounded by missing property? See how much you can track down

6 Being a good neighbor — Sandia's community & media relations functions

This & That

Thunder, sonic boom, bricks? - Although thunder was in the Albuquerque area on Tuesday, Feb. 28, that wasn't the loudest noise that day. It was that proverbial ton of bricks hitting Kirtland Air Force Base as a result of the Pentagon's plans. Kirtland could eventually lose 6,850 jobs or so and close most facilities if the Pentagon's recommendations on military base closings/realignments are adopted. It's far from a done deal, and community and political leaders will be working to stop or at least reduce the cuts. We'll explore possible effects on Sandia soon.

* * *

Take a chance, Neil - I noted in the last issue that George Walker (12367) thinks he may still be using the same stapler he started with at Sandia back in 1949. Now, Staff Secretary Harriet Goodness (7900) sends a note reporting that her boss, Neil Hartwigsen, says he was given a stapler and box of staples when he started at Sandia in 1967. And Neil figures he'll have to retire when the staples are gone. Here's a chance to find out what she really thinks about you, Neil. Leave that box on top of your desk and see if the supply of staples grows or dwindles quickly.

* * *

Survey results - Thanks to all Sandians who responded to our recent *Lab News* readership survey, which also included a few questions about the *Weekly Bulletin*. We learned a lot and got some great ideas from the survey. Read our story on page eight and see if you agree with the survey respondents.

* * *

Column comments - Several survey respondents had comments about this column. Some folks read and enjoy it, and others don't. That's understandable - different strokes for different folks, as they say. Anyway, I thought you might like to see a few excerpted comments about this column. I couldn't resist a few retorts.

"Keep up the 'fun' stuff - seems like we need a little on the lighter side these days." (I couldn't agree more.)

"More of This & That; include even more humor."

"The editor's column is pure verbal garbage." (Could this one be from my boss?)

"[This column] was at one time a column of funny items and events that encompassed everyone. Now it seems to be nothing but one person's negative view of whatever is his pet peeves, and his views only." (Wow! I'm not sure what I've done to so offend this person unless he/she is the one who bought those ugly yellow butt cans for the Labs.)

"It is very refreshing to see him [me] take on the Sandia 'sacred cows' in print." (I do have to be careful whose pastures I'm in, though.)

* * *

Even money? - As New Mexico's lawmakers ponder various versions of legislation regarding gambling, lotteries, etc., it seems to me we could put together a pretty good lottery in which folks could bet on what will happen first - if ever: (1) the proposed Montano Bridge over the Rio Grande will be completed, (2) the Waste Isolation Pilot Plant will receive its first shipment of nuclear waste, or (3) hell will freeze over. Even money on number three is looking better all the time.

- Larry Perrine

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MARTIN MARIETTA

More hiring restrictions announced this week

In a memo this week to Sandia vice presidents, Executive VP Jim Tegnella said it was necessary to impose new hiring restrictions beyond those announced in January (*Lab News*, Feb. 3).

The latest sector revenue forecasts for FY97 are lower than those that served as the basis for the earlier guidance, Jim says in the Feb. 28 memo. "Because the affordable staff is now less than our earlier 8,500 estimate, it seems prudent to further restrict hiring and promotions until the VPs have revised data on how the changed work plan will impact their divisions over the next two years. Therefore, beginning Feb. 28 and continuing until revised division on-roll targets have been issued for FY95 and FY96, all hiring actions and promotion job postings will require my approval." Earlier, on Feb. 6, a decision was made to freeze manager job postings until a system is accepted for controlling manager numbers and costs. Only manager job postings approved by Jim are to be processed, he said in a Feb. 10 memo.

The January announcements put limitations on hiring for the next three months until a review and update of revenue and staffing forecasts could be completed. The Feb. 28 memo is a further restriction.

Feedback

(This question was asked of President Al Narath at his latest employee dialogue session at Sandia/New Mexico. He didn't have precise information at the time, and promised to get the information for the questioner.)

Q: I've noticed lately that in the job postings, the number of TA and STA positions has been very small and declining on a regular basis. Is there a reason for this trend and do you expect it to continue?

A: The number of postings in all job classifications has declined in the last three years, including STA and TA postings. We saw an increase in number of total postings in FY92 and FY93, which may have resulted from fine tuning after the Labs restructuring in April 1992. The FY94 level of posting activity trended back to the pre-restructure levels.

The following table summarizes STA/TA posting activity for the last four fiscal years. MTS and total postings are provided for comparison.

	FY91	FY92	FY93	FY94	Total
STA/TA	103	210	135	91	539
MTS	244	385	352	238	1,219
All Jobs	786	1,382	1,115	973	4,256

Becky McClafin (3533)

Recent Patents

David Craft (9136) and John Hohimer (11500): Unidirectional Ring Lasers.

Sanford Ballard (6116) and Brian Looney (non-Sandian): Monitoring Probe for Ground-water Flow.

Emil Kadlec and Randy Normann (both 2663): Downhole Telemetry System.

William Sweatt (9225): Condenser for Illuminating a Ring Field.

Jon Martens (non-Sandian), Vincent Hietala, and Thomas Plut (both 1322): Hybrid Matrix Amplifier.

Frank Zanner, Rodney Williamson (both 1833), and Mark Smith (1841): Metals Purification by Improved Vacuum Arc Remelting.

James Novak and James Wiczer (both 1315): Non-Contact Capacitance Based Image Sensing Method and System.

Robert Rye (1114), Antonio Ricco (1315), M. Hampden-Smith, and T. Kodas (both UNM): Methods for Patterned Deposition on a Substrate.

Narayan Doddapaneni and David Ingersoll (both 2206): Electrolytes for Power Sources.

Scott Chalmers (1311), Kevin Killeen (1126), and Keven Lear (1312): Method of Deposition by Molecular Beam Epitaxy.

Finding the Lab News office: you can do it

Construction work north of Bldg. 800, encompassing the former visitor parking lot, has begun. A fence has been erected around the site, blocking an entry gate and a path leading to it at the southwest corner of the *Lab News* and *Weekly Bulletin* offices in Mobile Office (MO) 172. The only remaining access is through the gate at the northwest corner of MO 172; although you must enter our offices through this gate, we are outside the Technical Area, and a clearance is not required to enter our offices. The new visitor parking area is west of its old location, immediately west of 5th St. and east of Wyoming Blvd.



Smallest chips yet

(Continued from page 1)

are sensitive to this particular wavelength of light are under development. Resists are used to "image" the pattern on the wafer. Parts of a circuit pattern can be modified through further processing after each lithography step. Twenty steps may be needed to create one complex integrated circuit.

- A new stage that aligns the wafer between each step uses frictionless magnetic levitation.

First-ever complete, integrated system

"This is the first time anybody in the world has integrated a complete extreme ultraviolet lithography system that is capable of printing a device," says Rick Stulen, Manager of Materials Science & Technology Dept. 8342. "It's an extremely important step along the way to making an industry tool."

The development is part of DOE's National Lithography Program. In it, Sandia and AT&T Bell Laboratories have worked together through a cooperative research and develop-

ment agreement (CRADA). Lawrence Livermore National Laboratory, meanwhile, has joined Intel Corp., Advanced Micro Devices Inc., and other industrial partners in related CRADAs. These CRADAs are all intended to explore the feasibility of microchip manufacture using extreme ultraviolet light.

This lithography approach is just one of several competing lithography methods that may be selected to achieve the goal of 0.1-micron-wide microchip features by the year 2007. The Semiconductor Industry Association expects that technical options will be narrowed in 2001, with a leading technology selected in 2004 and volume production starting in 2007.



NATIONAL LABORATORY colleagues were among the guests who toured Sandia/California's new Advanced Lithography Facility Feb. 22. From left to right, Dan Tichenor (8413), a principal investigator on the lithography project, shows the research tool to Nat Ceglio, who leads extreme ultraviolet lithography research at Lawrence Livermore National Lab, and to David Attwood, who directs the Center for X-ray Optics at Lawrence Berkeley National Lab.

Advanced lithography facility dedicated

Miniaturizing microchip circuit features to 0.1 micron is no small task, industry leaders acknowledged at a dedication ceremony at Sandia's Advanced Lithography Facility on Feb. 22.

"Lithography is the most difficult manufacturing process probably anybody has undertaken, and also the single most enabling technology," said Jim Glaze, Vice President of the Semiconductor Industry Association.

Glaze made his remarks to nearly 100 visitors and Sandia employees who attended the evening ceremony.

Sandia VP John Crawford (8000) told the audience that the new facility is "one major step to help us achieve the dream" for the two-year-old building where it resides, the Integrated Manufacturing Technologies Lab.

Rep. Bill Baker, whose congressional district includes Sandia/California, hailed the celebration of this technological achievement. (The lawmaker was busy in Washington D.C., so his remarks were presented by aide Erlene DeMarcus.)

Guests at the event included Glen Cheney, a former Sandia VP and now President of SEMI/SEMATECH; Gene Feit and Karen Brown of SEMATECH; Charles Fowler of DOE; Bruce Tarter, Director of Lawrence Livermore National Lab; and Paul Percy, Director of Sandia's Microelectronics & Photonics Core Competency Center 1300.

Richard Freeman, who heads AT&T Bell Labs' Advanced Lithography Research Program in Holmdel, N.J., commented earlier in the day that the extreme ultraviolet lithography research tool "probably has the best chance of actually doing what everyone admits is an extraordinarily difficult thing to do."

The integrated experimental system is currently undergoing characterization, and is expected to etch its first 0.1 micron circuit in September.

"People used to talk about the show-stoppers" for experiments using this type of lithography, Freeman said, "and we're within one year of defeating all of them."

Sandia's laser plasma source

The research is taking place under auspices of the DOE's Advanced Design and Production Technologies for Defense Programs. It grew out of the Strategic Defense Initiative Program, in which Sandia/California developed a laser plasma source of extreme ultraviolet radiation. A commercial laser plasma light source might be developed for about \$1 million, Rick says. This is about \$29 million less than a synchrotron, which is the other means of creating suffi-

ciently strong extreme ultraviolet light to lithograph circuits on silicon wafers. AT&T initiated research into extreme ultraviolet lithography in 1989, in proof-of-principle experiments using the National Synchrotron Light Source.

The new laboratory research tool was unveiled Feb. 22 (see sidebar at left) at Sandia/California during a special meeting of the Semiconductor Industry Association in which researchers from universities, industry, and government facilities presented results of their extreme-ultraviolet lithography-related research.

Sandia California News

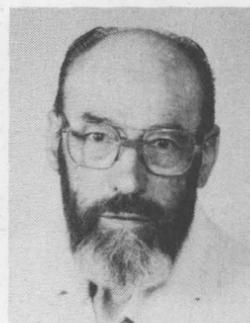
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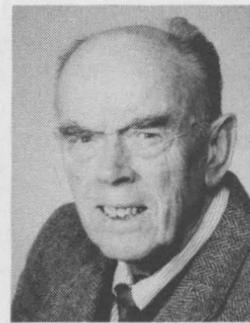
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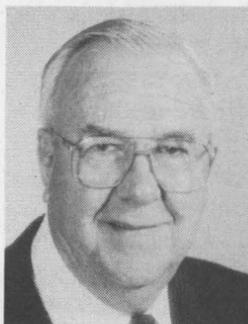
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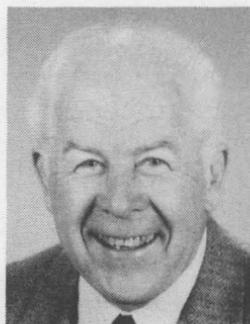
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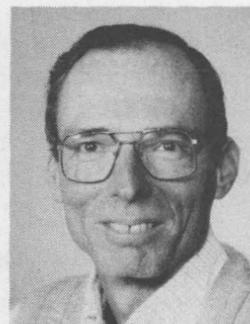
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8535



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Some property coordinators are real 'hound dogs'

Property awareness week is March 6-10



Some employees think of property coordinators as people who "hound" them, whining or growling for information about missing property. But, like a hound dog after a bone, that is exactly what the best ones do to find missing property.

DOE has strict requirements for Sandia about locating property. Sandia routinely locates 99.7 percent (on average) of its property during inventory, after three years of searching. The goal, though, is 100 percent. How can this be accomplished?

Because Facilities Development Center 7900 consistently has excellent results locating its property, some of its current and former property coordinators were asked for the secrets to their success.

"Teamwork is the key," says Carol Wilson (7907). "Property coordinators in our center work together very closely, notifying each other when we find property that does not belong to us."

This was echoed by Valine Garcia (7800), who adds that using e-mail allows her to send messages and to follow up quickly. "I'm always on guard for uninventoried property, which is easy to recog-

nize because it does not have the prior year's colored sticker on it (such as a yellow '94)," she says. "Even if the property is not ours, I take down the bar code number, look it up in EPMS (Enhanced Property Management System), and call the owner."

Shirley Mayer (7902) says persistence works for her. "You hunt, search, dig, and finally find what you're looking for." Another trick Shirley uses is not waiting for employees to tell her that property has been moved or changed ownership. When she sees property being moved or hears about it through the grapevine, she immediately sends a property list to the responsible party and asks for an update.

Rose Costilla (7908) says employee cooper-

ation helps property coordinators do their jobs. "Communication is very good in 7900," she says. "Employees make an effort to let us know when they move property."

Bob Eldredge, Manager of Property Management Systems Dept. 7616, recognizes that property coordinators in other organizations are not as fortunate. "One of the biggest complaints we hear during property coordinator training is that employees don't notify their property coordinators when they move or transfer ownership of property." Bob says that in his opinion, this type of communication represents an attitude that must filter down from the director, through management, to be effective. It obviously works in Center 7900.

— Terri Jordan (7616) and Janet Carpenter

Hound-dogging can win you a dinner for two

Sandia/New Mexico will award "Dinner for Two" at Garduños to the person who locates the most uninventoried Sandia property between now and March 31. The search is on to locate bar-coded items that do not have a yellow '94 sticker on them. Off-site equipment is also included. As you locate "missing" items call Property Management Systems Dept. 7616, Helen Quintana on 844-0206 or Shirley Ramirez on 844-5612, with the bar-code number and property description. A running account will be kept, and the winner announced on April 7.

Test your PIQ (Property Intelligence Quotient)

Test your Sandia property management "know-how" by taking the quiz below. Answers are on page 12. If you have questions about property management, contact your property coordinator or call the Property Hotline on 844-8691.

- (1) The "R" on barcoded property tags stands for Reapplication. True or False?
- (2) How many controlled property items do we have at Sandia?
 - (a) 75,000
 - (b) 180,000
 - (c) 250,000
 - (d) who's counting?
- (3) What is reimbursable equipment?
 - (a) equipment that Sandia reimburses DOE for
 - (b) equipment that is purchased from funds received from auctioned property
 - (c) equipment that belongs to someone other than Sandia/DOE
 - (d) none of the above
- (4) EPMS stands for "Everyone's Property Management System." True or False?
- (5) Who is responsible for ensuring that the proper Gate Pass forms are used?
 - (a) Individual who is moving the property
 - (b) Property coordinator
 - (c) Property Management Systems Dept. 7616
 - (d) Manager
- (6) Computers and disks must be "cleansed" before they are sent to Reapplication. This means:
 - (a) clearing of all software and stored data
 - (b) checking for potential contamination from hazardous materials
 - (c) cleaning off all dust, ink smudges, and fingerprints
 - (d) clearing of all Sandia/DOE-created software and all sensitive data
- (7) EPMS should be updated: (pick as many as are correct)
 - (a) whenever property is moved
 - (b) whenever property changes "ownership"
 - (c) whenever property changes possession
 - (d) whenever property is lost or stolen

NE Asian panel

(Continued from page 1)

monitoring community. It promotes communication among political and technical experts from around the world. Since it opened last July, the CMC has received numerous visitors from Russia, as well as from South Korea, the Middle East, and South Asia. (See May 27, 1994, *Lab News* story, "New Cooperative Monitoring Center promotes weapons nonproliferation technology.")

The Northeast Asian panel visited the center as part of a "Track-II" effort, which according to Arian Pregoner, Verification and Monitoring Analysis Dept. 9241 Manager, is an unofficial process of pursuing security objectives. The process normally runs parallel to an official government process. Project Manager Kent Biringer (9241), who visited Georgia Tech to introduce and promote the CMC to the Asian experts, explains, "The panel's not here in an official capacity, representing their governments; they're experts on policy analysis doing research for their proposal."

Toward a limited nuclear-free zone

Although here in an unofficial capacity, the panel members have good access to their governments, and their goal is to promote a

limited nuclear-free zone. As a first step, the panel wants governments in the region to establish an official negotiating body that would determine the parameters of the nuclear-free zone. Several proposals are being considered — even some that include US territory in Alaska.

As part of the CMC workshop, the senior research panel toured the CMC facility, getting hands-on experience with monitoring hardware and watching demonstrations of interactive software that simulates various types of sensors working individually and in combination with other sensors.

Arian Pregoner expects to keep in touch with the Northeast Asian panel. Based on CMC experience, she says, "After every visit, we've gotten requests for more involvement." Arian



EXPORTABLE SENSORS — Rich Brown (5808, right) explains monitoring hardware available to the Northeast Asian panel visiting the Cooperative Monitoring Center (9241). From left to right are General (ret.) Kim Jae Chang, South Korea; Dr. John Endicott, Founding Director of Georgia Tech's Center for International Strategy, Technology, and Policy; Dr. Yan Xuetong, China; Major General (ret.) Vyacheslav Bunin, Russia; and Lt. General (ret.) Toshiyuki Shikata, Japan.

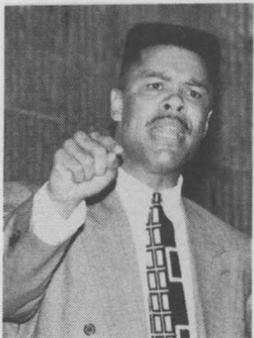
believes that even if the proposed official negotiating body is not established, a tremendous interest has been generated. "We hope to continue to contribute to the development of concepts for monitoring a limited nuclear-free zone in the region." — Tammy Locke

Sandians celebrate Black History Month

Santa Fe Police Chief says 'pull the rest of us up'

The journey toward equal opportunities for minorities in the workplace is not over. And although African Americans and other minorities are making strides in the right direction, the battle for equality has not been won.

This was the message that Donald Grady, Chief of the Santa Fe Police Department, delivered to more than 200 Sandians and their guests at a Feb. 22 Black History Month luncheon.



DONALD GRADY

Grady said one reason the battle is not over is that once many blacks become successful, they fail to help other blacks reach their goals.

"Assimilation gets us nowhere," Chief Grady said. "You need to be willing to be a pioneer. Set your goals high.

Take the shots that count. And believe in yourself. But once you make it through that glass ceiling, don't be assimilated. Reach back and pull the rest of us up."

As part of the Black History celebration, sponsored by Sandia's Black Heritage Club and Black Leadership and Outreach Committee, participants enjoyed traditional ethnic food, poetry, praise dancing, and music by the Umoja Gospel Choir. Recognition awards were presented to Chief Grady and to two outstanding black Sandians: Anthony Thornton, Director of Diversity Leadership Center 3600 and Sandia's first African American director, and Eunice Young (6905), 1995 Black Engineer of the Year (see sidebar at right).

Look to future

"Affirmative action is not concerned about our ability," Chief Grady said. "It's designed to make sure the numbers look right. But diversity is not a numbers game. It's about using the resources we have to the best of our ability. Our strength is in our common diversity. It's not about me or you — it's about us. And our power as a nation is in us."

Workweek

(Continued from page 1)

says that the schedules being offered at Sandia at this time do not include a four-day workweek every week because Sandia management determined that this schedule would not allow Sandia to meet business needs effectively.

The biggest misunderstanding about the compressed workweek is the rumor that management has already decided to cancel the program.

"No premature opinions regarding the cancellation of compressed workweeks have been formed by upper management," Susan says. "Barring unforeseen results from the pilot, it is expected that compressed workweeks will be made available Labs-wide."

She adds that, to date, no agreements have been reached with Sandia's bargaining units, so compressed workweeks will not be available to represented employees unless and until agreements are reached.

Charlie Emery, Vice President of Human Resources Div. 3000, has been keeping Sandia's Quality Leadership Council (SQLC) updated on the progress of the pilot, which he terms a success.

He stressed that in celebrating Black History Month, it is important to create history rather than reacting to and dwelling on the past.

"We need to stop concentrating on the past and focus on the future. Yes, we must learn and love our heritage because where we've been is important. But where we're going is more important. And though we've come so far, we still have so far to go."

Also as part of Black History month, many Sandians attended a forum on "Implementing Diversity" on Feb. 21.



AWARD WINNER — Eunice Young (6905) was honored at the Black History Month luncheon for receiving the Black Engineer of the Year Award in the area of affirmative action (see below).

Sandia engineer builds bridges, wins award

Eunice Young (6905) is a pioneer. A 15-year Sandia veteran, Eunice wears many hats; she is a civil engineer to her colleagues, a mother to two children, and "the Science Lady" to the kids in her daughter's first-grade class, which she teaches occasionally. And she is what Donald Grady, guest speaker at the Black History Month celebration, calls a pioneer.

Eunice recently received the Black Engineer of the Year Award for 1995 in the area of Affirmative Action for her role in a partnership between DOE and the Historically Black Colleges and Universities/Minority Institutions Environmental Technologies Consortium. The goal of the \$35 million partnership is to teach environmental restoration and waste management to students at minority institutions so they can enter the job market as professionals in these fields. She is also involved in various community outreach activities, including teaching and tutoring minority students in physics and math.

According to Eunice, it's all about building bridges. "It was always my dream to be

an engineer. I wanted to build bridges. And now, in a way, I guess I do that through my work with these partnerships and with the students whom I help."

But her path to success has not been an easy one.

"When I came to Sandia, I was really an anomaly. I was a young, black, female engineer, and I really had to struggle to find common ground with a lot of the people whom I worked with. I struggled to foster an inclusive environment based on ability."

Eunice acknowledges that the struggles she encountered are still faced by young minorities entering the job market. Her community outreach activities are one way she hopes to effect change to that end.

"Fifteen years ago, I was quoted in *US Black Engineer*, saying that I was part of this new 'transition generation' that would lead the way for other black engineers. I really thought that we would see a significant increase in the number of black scientists, but that hasn't occurred. But instead of waiting for it to happen, I'm working to make sure that it does."

"I have received feedback from the three participating vice presidents that they, their management, and their employees believe the program to be a real morale booster," Charlie says. "We are working on several issues, particularly the schedules available to nonexempt employees, to streamline the transition when we go Labs-wide in May."

A formal evaluation of the pilot will be conducted in April and a report given to SQLC. If the compressed workweek is approved, town meetings will begin later in the month, and Labs-wide implementation for eligible employees will start May 5.

John Crawford has established that California will implement compressed workweeks only if the 9/80 option is available to both exempt and nonexempt employees.

—Mary Hatheway

Welcome

Albuquerque — Sigifredo Gonzalez (6219), Tran Nhu Lai (2615), Marcus Martinez (6613), Kelley Peters (7573); Margaret Chavez, Emily Fuller, Marie Garcia, Jennifer Gonzales, Deborah Langley, Barbara Luna, Peggy Romero (all 12111)

Other New Mexico — Ernie Limon (12830), Randall McKee (2172), Timothy Montoya (7615), Brenda Weston (12111)

Minnesota — William Boebert (5903)

New York — Kathryn Poulos (12111)

North Carolina — Vella Strickland (7732)

Wisconsin — Todd Christenson (2641)



Talking to our neighbors: How Sandia works with the community and the news media

From local neighborhoods to CNN, Sandia's external communicators serve many constituencies

By Bob Goetsch

Laboratory Communications Dept. 12610

Sandia is surrounded by neighbors who have their own diverse needs and interests but who depend to varying degrees on the Labs for economic support and want to know how Sandia's activities will affect them and the rest of Albuquerque.

Communicating with them is one of the challenging jobs of Sandia's Public Relations and Communications Center 12600. "The goal in our external communications is to establish common trust," says Director Jerry Langheim. "We want to demonstrate that we are a good neighbor, and we have to talk to the community in order to do that."

After a series of meetings last year with community groups, the center began to change the way Sandia communicates with the external world. One of the most important changes was to move one of the Labs' primary outreach groups, Community Involvement and Issues Management Dept. 12650, out of the tech area, off-base, and into offices in Albuquerque's Uptown area.

"Before our community involvement program got going," notes Mike DeWitte, Manager of 12650, "some people in the community liked our economic impact, liked our work with education, but really didn't know us. On the other hand, other people in the community thought that we were arrogant, a possible environmental threat, and exclusive. The only way to build a bridge between Sandia and these neighbors was to talk to them."

Involvement the key

Mike believes that involvement is the key to communicating with the community. Involvement means giving the time and commitment to the community to address the issues it finds important.

"We are working with many different groups, such as New Mexico First, Shared Vision, neighborhood associations, and government and regulatory agencies," Mike says. "We've also improved our support of both the Greater Albu-



MEDIA MATTER — Local reporters question DOE Secretary Hazel O'Leary during her visit to Sandia in April 1993 as Rod Geer (center), Manager of Media Relations Dept. 12621, watches in the background. All Sandia media interactions — local, national, and international — are coordinated and arranged by the Media Relations Department.

querque Chamber of Commerce and the Albuquerque Hispano Chamber of Commerce. We've discovered that the community, through the groups we've worked with, can also help Sandia. Our goal is mutual understanding and trust, which only occurs when you have both communication and cooperation."

As Sandia has become involved in the community, the public perception of Sandia has improved. Mike has surveys demonstrating that. And as he points out, it's not just the community involvement program that is more open to the community, it's groups like Tech Transfer and Purchasing — Sandians in general are coming out from behind the fence.

One part of Sandia that has had plenty of

experience in communicating outside the fence is Media Relations Department 12621. That's the Labs' group charged with initiating Sandia's flow of news out to reporters. Another key part of the department's job is to respond to queries about the Labs from international, national, and local news media. One challenge, as Manager Rod Geer notes, is that the reporters may have only a partially accurate — or at times a wholly inaccurate — story.

"A while back, a local news group had a misunderstanding about Sandia's past use of depleted uranium, the need to remediate some sites where uranium had been used, and whether the Labs had been trying to hide this activity from the public," says Rod. "By showing the reporter the whole picture, including documenting how we had really been talking to the community for years about the situation, we eventually saw a story that concentrated on the dedicated people who are working to ensure environmental compliance at Sandia."

Many in the media — ranging from local reporters to newspaper and magazine journalists and television crews from as far away as Australia, England, and Germany — want to learn more about Sandia technology than they've heard about elsewhere. (Check out our "Sandia in the News" column on the next page for a sampling of what interests the media about the Labs.) Some media groups, such as CNN's science reporting teams, have been visiting Sandia several times a year for almost a decade. Each visit may cover four to five stories that may be broadcast over the course of several months. Rod feels that this exposure is essential in informing the public about what a tax-supported national laboratory is doing.

"While we will hold a press conference on important occasions," says Rod, "the majority of our work lies in dealing with individual reporters' requests, which call for a variety of written products — news releases, news tips,

When a reporter calls: Tips for talking to the news media

If you're suddenly called by a reporter, the Media Relations Department has some pointers for you.

"First, if you're not the right person with the right information, let the reporter know that and direct the caller to us," says Rod Geer (12621) (or to Barry Schrader [8502] at Sandia/California). Rod's phone number is 844-6601; Barry's is 294-2447. Media Relations employees will either answer the caller's request or find the appropriate technical contact.

"If a reporter reaches you directly — and that's a lot easier to do now with wide-spread access to information about Sandia on the Internet and the World Wide Web — to talk about your specific areas of expertise, go ahead if you feel comfortable doing so, and if you've talked about this possibility with your management," Rod says. And always let Media Relations know about such interviews.

No matter when or how you talk to the press, it's vital to be prepared. Here's some advice that should help:

- Have a plan. Know the specific points you want to make during the interview and make them. Don't say to yourself, "I'll point that out soon." You may forget.
 - Keep your points short and easily understood, particularly for TV interviews. The average TV sound bite is now about 10 seconds or less.
 - Realize that nothing is "off the record." If you don't want to see it in print or watch it on TV, don't say it.
 - Don't speculate.
 - Don't be afraid to say, "I don't know."
- "Finally, we realize that most Sandians have never been interviewed by the media," Rod says. "That's why we're eager to visit with anyone about how to prepare for a media interview."

media advisories, or simply letters — that are sent out to many different mailing lists, as well as to individual reporters.”

They've been reporters themselves

The Media Relations Department also helps Sandians respond to inquiries from the media. (See “When a reporter calls . . .” for some helpful advice in this area.) In fact, virtually all the staff in Rod's organization have been reporters themselves and know what it's like on both ends of the communications channel. Because with few exceptions Sandians outside the Media Relations Department have little experience in dealing with the media, Rod's group is willing to go to any organization and talk about interacting with the media.

The Media Relations Department also works closely with Employee Communications Dept. 12622, publisher of the *Lab News*, *Weekly Bulletin*, and the daily *Heads Up!* bulletin (formerly called the *Sandia Business Brief*) summarizing national events. The aim of this interaction is to make every effort possible to ensure that Sandia employees are informed first about significant events or developments before they appear in local or national media.

“The media relations and employee communications staffs have consistently increased

their service to Sandia in recent years,” says Nigel Hey (12620), who coordinates the two departments for the center. “Their responsibilities have increased greatly with Sandia's emergence from an ‘entitlement culture’ into a world where our activities are of increasing interest to supporters and detractors alike, and where uncertainty over our future path has made it all the more important to communicate effectively with our external audiences and our employees.”

The Public Relations and Communications Center is only one part of Sandia's interaction with the larger community. Tech Transfer and Purchasing interact regularly with the community, as does the Education Outreach organization. Sandia also has programs to loan executives to community groups and to provide planning assistance for other organizations. “Over the next four years, Sandia and Martin Marietta will contribute about \$12.6 million dollars to the local community, through the Technology Ventures Corporation, scholarships, gifts and grants, and other programs,” says Jerry Langheim.

Tours, careers, charities, volunteers

Within the center, Community Relations Dept. 12671 supports many of these activities. “We're the point of contact for many members of the local community,” notes Redd Eakin. “We keep the flow of charitable and volunteer efforts from Sandia moving into community and neighborhood groups.”

The Community Relations Department



XERISCAPE PROJECT — Bill Mairson of Community Involvement and Issues Management Dept. 12650 works with Cibola High School junior Rebeca Winnett xeriscaping the Grand Avenue grassy median last Saturday, Feb. 25. Bill is chairman of the Environmental Youth Committee of Shared Vision, Inc. and a member of the Shared Vision Environmental Caucus, chaired by Mike DeWitte, Manager of Dept. 12650. Students from Albuquerque high schools and other local organizations have been working with the City Parks Management Department in designing and implementing xeriscaping for the median. Sandia's involvement is just one example of the Labs' community outreach programs.

also supports communication with the local community through tours, a speakers bureau, and participation in career fairs. “We provide a tour for at least one local professional group every month,” says Juanita Sanchez (12671). “It's one form of access that the community has to Sandia.” In another outreach effort, President Al Narath is hosting community leaders' breakfasts at Sandia. The board of directors of the Albuquerque Hispano Chamber of Commerce, for example, joined Al for breakfast and a tour in January.

All these efforts are part of Sandia's involvement in the community and provide opportunities to present Sandia to the public. As Jerry Langheim says, “People are interested in Sandia, and Sandia needs to communicate with them.” The Public Relations Center's job is to make sure that these communication opportunities benefit both Sandia and its community.

Sandia/California does it too

Media relations and community relations functions are of course also conducted at Sandia/California. Local media relations there and a speakers bureau are handled by Barry Schrader and colleagues in Public Affairs & Employee Communications organization 8502. They report to Pat Smith (8500) and coordinate closely with the Media Relations and Employee Communications departments in New Mexico. Various aspects of community relations at Sandia/California are coordinated by a California Outreach Group headed by Mike Dyer (8800). Jane Ann Lamph of the 8800 staff (she's also part of Government Relations Program Office 12120) handles California site governmental relations, including local governments.

Sandia in the News

This is a periodic column listing a selection of recent print and broadcast news reports about Sandia. It is provided by Media Relations Dept. 12621 to give Sandians a sense of what is being said about Labs work in national and international media.

A feature about the possibilities that Sandia's prototype “smart gun” offers to police officers and families that own handguns recently anchored the NBC-TV Nightly News. The piece had several scenes with developer Doug Weiss (2314), in his Sandia lab and while speaking at a police chiefs' convention in Chicago. Also in the piece was Albuquerque Police Chief Joe Polisar, who expressed strong support for the gun's continued development and testing. Chief Polisar once had his handgun stripped away by an adversary.

In an article on “Future Firearms,” *Omni* magazine reported on Sandia's work with the National Institute of Justice in developing sticky foam and the smart gun. The article quoted Sandians Tom Goolsby (9611) and Doug Weiss (2314) who talked about possible applications for the new technologies.

In the syndicated column “News of the Weird,” Chuck Shepherd also reported on Sandia's work on the smart gun, sticky foam, and the strobe light that disorients criminals. “News of the Weird” is published in 250 papers throughout the country.

KRON-TV, San Francisco, ran a segment on the bioremediation efforts of Sandia/California to clean up an underground oil spill from 1975.

The “Down to a Science” column in the *San Francisco Examiner* wrote about Sandia's work with the Walt Disney Co. to develop a more versatile device for igniting fireworks at Disney theme parks. The column also discussed Sandia's work to develop the “world's fastest engine.” Ernie Garcia (2641) was quoted in the article.

The “Airline Outlook” section of *Aviation Week & Space Technology* discussed Sandia's research into the performance levels of airline eddy current inspection techniques. The study was sponsored by the Federal Aviation Administration and was conducted at Sandia's Aging Aircraft Nondestructive Inspection Validation Center.

Sandia's work with SEMATECH was named by *Solid State Technology* as an example of a suc-

cessful laboratory/industry partnership. The article reports on the more than 45 projects that have been conducted under the cooperative research agreement, and there is a photo of Sandian Charles Gwyn (1302).

Defense Electronics included an article on Sandia's Primary Standards Laboratory and its expanded work as a user facility. Ralph Johnson (1140) said the new facility “will allow for high precision measurements in controlled environments that are required for 21st Century technologies.”

— Kathy Kuhlmann (12621)

Sympathy

To Judy Wills (1144) on the death of her mother in Albuquerque, Jan. 15.

To Faye Woods (5831) on the death of her brother in Albuquerque, Jan. 25.

To Carolyn (7445) and Wayne (2564) Vine on the death of her mother and his mother-in-law, Jo Moritz, in Garland, Texas, Feb. 10.

To Andy Brito (10231) on the death of his father in Albuquerque, Feb. 16.

To Sam Cancilla (13212) on the death of his mother in Pennsylvania, Feb. 20.

1995 Lab News readership survey results

Ninety-eight percent of respondents rate the paper good or better

By Larry Perrine

Lab News Editor

Although Sandians suggested a number of ideas for change in the latest *Sandia Lab News* readership survey, they still rely on it and the *Sandia Labs Weekly Bulletin* as their primary sources of Labs-wide information, and employees think they get good, timely information in both publications.

Employee Communications Dept. 12622 randomly selects employees at all locations to survey every few years to determine how we're doing and what kinds of changes Sandians would like to see. We mailed out surveys to 430 folks (about five percent of the work force) in mid-January and asked for responses by Feb. 3. We received 241 responses, a 56 percent return rate.

Additional comments welcome

The results are presented here — in the forms of tabulated material, comparison with the last survey in 1991 (see sidebar on next page), several reader comments, and my replies. The respondents agreed that the *Lab News* and *Weekly Bulletin* remain Sandia's primary sources of Labs-wide information, and we hope you will take a few minutes to find out what these readers think about our coverage. We welcome any additional comments and suggestions.

Note: Percentages have been rounded to the nearest whole number. Although most respondents replied to most questions, only the first question was answered by all 241 respondents. The exact numbers of votes are shown (in parentheses) for the first question only.

- In general, how do you rate the *Lab News*? %
 - Excellent (43 votes) 18
 - Very good (120 votes) 50
 - Good (71 votes) 30
 - Fair (6 votes) 2
 - Poor (1 vote) 0
- How much of each issue do you usually read?
 - Most 36
 - About half 50
 - Very little 14
 - None 0
- Do you usually take the *Lab News* home with you?
 - Yes 59
 - No 41
- If so, do any family members usually read any part of it?
 - Yes 68
 - No 32
- Do you think you get timely information (not old news) in these publications?
 - Yes, *Lab News* 90
 - Yes, *Weekly Bulletin* 97
- *Lab News* stories often include Sandia history and other historical background. Do you find this historical information interesting?
 - Yes 91
 - No 9
- Because Sandia's business is technology, the *Lab News* regularly includes articles about our technical/scientific work. We try to write them in a readable, interesting style. In general, do you think these articles are too long?
 - Yes 33
 - No 67
- Are the technical articles too complicated?
 - Yes 15
 - No 85
- Other methods are being used today to convey information to Sandia employees (Radio Sandia, Sandia Line, Voicemail broadcast bul-

letins, E-mail, etc.). Do you consider either the *Lab News* or *Weekly Bulletin* to be your primary source of information about Labs-wide activities?

- Yes 92
- No 8
- The *Lab News* was redesigned last spring to be more readable and visually attractive. Did you notice the change?
 - Yes 58
 - No 41
- If yes, do you prefer the new look or the old?
 - New 81
 - Old 19
- The *Lab News* makes a special effort to use as many photos as possible, especially "people pictures." Do you enjoy seeing a generous mix of photos along with the stories?
 - Yes 98
 - No 2
- Do you usually read or look at the following? (Figures here are the percentages of employees who usually read these types of features or regular items, starting with the most-read items.)
 - Management/administrative news 83
 - Retiring employee photos 83
 - Technical stories 75
 - Milepost photos (service anniversaries) 74
 - For Your Benefit (employee benefits) 74
 - Feedback items 73
 - Favorite Old Photos 70
 - Sandia News Briefs 66
 - Classified advertisements 66
 - This & That column 63
 - Supervisory appointments 62
 - Photo feature pages 62
 - Medical Corner (health-related items) 54
 - Employee awards and honors 52
 - Annual State-of-the-Labs interview 50
 - This Month in the Past column 49
 - Sandia in the News column 48
 - Employee outside activities (unusual hobbies, vacations, etc.) 41
 - Fun & Games items 28
 - Sandia/California news* 21
 - Take Note items (short community-related announcements) 21
 - Coronado Club upcoming events* 15
 - ECP or LEAP campaigns 15
 - Savings bond campaign 11

*Total readership of the Sandia/California news and other items such as Coronado Club upcoming events is highly influenced by employee location. The Sandia/California news, usually printed on page three of the *Lab News*, is the best-read item by California employees responding to the survey, even though total readership is not high.

Comments and suggestions

Our 1995 survey included several areas in which readers could provide comments — how the *Lab News* and *Weekly Bulletin* might be improved, possible new features, areas that need more or less emphasis, etc. We received literally hundreds of suggestions and comments — some complimentary and some critical. There are far too many comments to include in this article, but here are just a few comments/suggestions, especially in areas where several people made similar ones, and my replies. To save space, most comments are excerpted and paraphrased, often combining the ideas of several people.

Publish more Feedbacks (employee questions/comments, usually answered by managers) and improve the answers.

First, everyone who submits a Feedback question/suggestion gets a personal answer. The *Lab News* already publishes most Feedback questions and answers that we think are of interest to most employees. We do encourage

managers to provide complete and candid answers, even to the point of our returning responses occasionally if we don't think the answer is satisfactory. However, we can't guarantee you will always like the answers. If you aren't satisfied with a particular answer, contact the person who provided it, or submit a follow-up Feedback. We always publish the names of Sandians who provide Feedback responses.

Include a letters to the editor section.

Sorry, but we have explored this before, and current corporate policy doesn't allow letters to the editor. Unless corporate policy changes, publishing Feedback letters and responses is the best we can do.

Print some color pictures.

A great idea, but color printing is quite expensive, and something tells me now is not a good time to ask for more overhead money. But, we'll check out the possibility of doing one or two issues a year in which we can print color photos.

Omit any article (especially from management) that includes two or more modern buzzwords.

Good grief! What do you expect us to publish? Seriously, many Sandians dislike buzzwords, but many others — not just managers — use them much too much. In truth, no one hates buzzwords more than I do. We try hard to keep them out of our publications, but it's a never-ending job.

Maybe I'm a cynic, but in my opinion Pravda was more balanced and insightful than the Lab News.

Yes, you are definitely a cynic.

Two separate verbatim suggestions: (1) "More pages." (2) "Shorten it."

OK.

The Lab News is too much of a "cheerleader" newspaper. Give us some of the bad news.

My cheerleader skirt hasn't fit since I got out of high school, but I acknowledge that we prefer to "accentuate the positive" in the *Lab News*, as do most company newspapers. However, we also don't hesitate to cover a negative story when it's significant to employees. Here are a few "bad-news" stories we have covered in the past few years: the salary freeze, the controversy surrounding DOE's (now-revised) rigid policy of revoking clearances of employees seeking help through Sandia's Employee Assistance Program, the DOE Inspector General's recommendation that "excess assets" from Sandia's pension fund be returned to the government (still not completely resolved), Sandia fails property audit, and possibly inaccurate urinalysis bioassays for employees.

Add information on what's going on at DOE Headquarters, DOE's Albuquerque Operations Office, and other places that affect us. Employees should be prepared for change.

No doubt about that last part. Although we don't have much room in the *Lab News* for such news, our department (Employee Communications 12622) already publishes an electronic newsletter on most workdays that includes "short takes" of this type of information. Formerly called the *Sandia Business Brief*, we recently renamed it *Heads Up! A brief look at national events of significance to Sandians*, or just *Heads Up!* for short. It is distributed via the internal web [Sandia IRN (Internal Restricted Network) Homepage] under "Communications." If you aren't "wired" yet, please contact your center or department secretary who should be willing to help you get a hard copy;

(Continued on next page)

Cellular phone industry calls up Labs' thin-film expertise

Unique agreement connects Russian research with US industry

Cheaper, better sounding phone conversations are goals of a first-of-a-kind research agreement that draws from the technical expertise of Sandia, US industry, and a research institute in St. Petersburg, Russia.



The cooperative research and development agreement (CRADA), signed last week in Albuquerque, was initiated by a small Colorado company seeking to market new materials that may improve microwave communications, including cellular phone technologies.

More than 26,000 cellular base stations service some 14 million cellular phone users in the US today. Each base station contains radiofrequency (RF) receivers that filter microwave signals, helping transmit hundreds of unique signals simultaneously over great distances.

The company, Superconducting Core Technologies (SCT), has developed a method to combine high temperature superconducting thin films with ferroelectric materials. (Ferroelectrics exhibit a change in electrical properties when subject to an electric field.) The resulting ferroelectric thin films will be used in improved RF receiver filters that can be "tuned" after manufacture, which should reduce manufacturing costs and increase the devices' sensitivity.

Ultimately that should reduce the cost of service to cellular phone users, provide for cleaner, stronger phone signals over greater distances, and increase a phone's battery life by reducing the strength of the signal it must generate. The materials may help improve microwave satellite communications technology as well.

Connects industry & Russian institutes

The two-year research agreement between Sandia and SCT is the first CRADA to be signed as part of the Industrial Partnering Program (IPP), a government- and industry-funded R&D program that links US industry needs with research capabilities in the former Soviet

Union. The program, authored by New Mexico Sen. Pete Domenici, is designed to prevent the proliferation of nuclear weapons by providing non-weapons-related work for scientists in the former Soviet Union.

Each IPP research partnership involves one or more of DOE's multiprogram labs, one or more equivalent research institutes in the former Soviet Union, and a member company of the United States Industry Coalition (USIC), a consortium of companies created last March to identify joint-venture opportunities in the former Soviet Union. Fifteen other USIC partnerships now are in their final stages. (USIC is administered by the New Mexico Engineering Research Institute at the University of New Mexico.)

As part of the agreement with SCT, Sandia will provide its experience in fabricating and characterizing ferroelectric thin films for weapons applications. It also will subcontract

portions of the research and development work to the Electrotechnical University of St. Petersburg (known as ELTECH), which has a long history of designing military-related microwave components and characterizing superconducting and ferroelectric thin films.

Labs project leader Duane Dimos (1845) says Sandia's primary technical challenge will be to help reduce the materials' dielectric loss (a measure of electrical efficiency). Three Sandia organizations will be involved: Glass and Electronic Ceramics Dept. 1845, Ceramic Synthesis and Inorganic Chemistry Dept. 1846, and Ceramic and Glass Processing Dept. 2476.

For more information, contact Duane on 844-6385, IPP program manager Dennis Croessmann (5091) on 845-9517, or Jim Rea (6901), DOE lab-USIC liaison, on 845-8728.



Sandia News Briefs

Carl Peterson wins AIAA's Aerodynamic Decelerator Systems Award

Carl Peterson of Fluid Structure Interactions Dept. 1516 will receive the American Institute of Aeronautics and Astronautics (AIAA) Aerodynamic Decelerator Systems Award for 1995. The award recognizes significant contributions to the effectiveness and/or safety of aeronautical or aerospace systems through development or application of the art and science of aerodynamic decelerator technology. Carl's award citation reads, "For contributions to the understanding of aerodynamic decelerators and their technical applications, both as an engineer and as an inspiring leader." The award will be presented at an AIAA awards banquet in Clearwater, Fla., on May 17.

Sandia Corporation will report directly to Lockheed Martin Corporate Executive Office

The Sandia Corporation will continue its same basic reporting relationship to corporate headquarters under the new Lockheed Martin Corp. as it has for the past year and one-half under Martin Marietta. Sandia President Al Narath will report directly to the Lockheed Martin Corporate Executive Office, according to a Feb. 28 Martin Marietta announcement. The Corporate Executive Office will consist of Lockheed Martin Chairman and CEO-designate Dan Tellep, President-designate Norm Augustine, and Executive Vice Presidents Tom Young and Vincent Marafino. Lockheed Martin will comprise 34 operating companies reporting to four company sectors — Aeronautics, Electronics, Information & Technology Services, and Space & Strategic Missiles. Other businesses, including joint ventures and Lockheed Martin's energy and environmental companies, also report directly to the Corporate Executive Office.

Lab News survey

(Continued from preceding page)

we don't yet have the capability to maintain a large Labs-wide mailing list for hard copies.

The Weekly Bulletin is dull and contains too much boilerplate (repeat items) about how to submit items for publication, bulletin board rules, etc.

The *Weekly Bulletin* isn't intended to be beautiful or great literature. It's a workhorse-type publication that's intended to convey information in an economical, straightforward manner — announcements about new or changing policies, employee training courses, job announcements, property available for reapplication, etc. We encourage submitters to keep items brief and readable, but with limited success. As far as the boilerplate goes, the printing process used to produce the *Bulletin* dictates that we publish multiples of four pages. The boilerplate, which we do use often, is simply used to fill otherwise empty space. It's easy to skip if you don't want to read it for the umpteenth time. Although some readers tire of seeing boilerplate items, you might be surprised how often someone calls us asking how to submit an item for the *Bulletin*.

Eliminate the hard copy of the Weekly Bulletin and distribute it electronically (internal web).

We're currently studying the best ways to

distribute this information to all employees. Before long, we hope to be distributing the *Bulletin* electronically on the IRN Homepage. However, we are very concerned about the many employees who are not connected to this network; any new system must ensure that they will have ready, equal access to the information. Until we establish our new system, please remember that the *Weekly Bulletin* is printed on recycled paper, as is the *Lab News*,

and both can be recycled again at Sandia along with regular white office paper.

As previously mentioned, we received hundreds of other suggestions and comments, and we will consider all serious ones seriously. In particular, respondents gave us lots of good new ideas for stories — something we really appreciate. Thanks to everyone who responded to the survey and to Tammy Locke (12613), for administering the survey.

Comparison with 1991 readership survey

(1) Overall rating — In 1991, 14 percent of respondents gave the *Lab News* an "excellent" rating; this year 18 percent. In 1991, 94 percent rated the paper "good" or better; this year 98 percent.

(2) In 1991, 89 percent of respondents said they read about half of the paper or more; this year 86 percent.

(3) Timeliness — In 1991, 81 percent of respondents thought they received timely information in the *Lab News* and 93 percent in the *Weekly Bulletin*; this year the percentages are 90 percent and 97 percent, respectively.

(4) Do you consider either the *Lab News*

or *Weekly Bulletin* to be your primary source of information about Labs-wide activities? Almost no change: In 1991, 91 percent answered yes; this year 92 percent.

(5) Tech articles too long or too complicated? In 1991, 40 percent of respondents said they were too long and 24 percent said they were too complicated; this year the percentages are 33 percent and 15 percent, respectively. (This is something we've worked at in recent years — to make these articles less complicated and shorter so more employees will read them and, we hope, learn more about Sandia's tech operations. We're still working at it, and we plan to get better.)

Mileposts

March 1995



T. J. Williams 40
2671



Nancy Glenn 20
6604



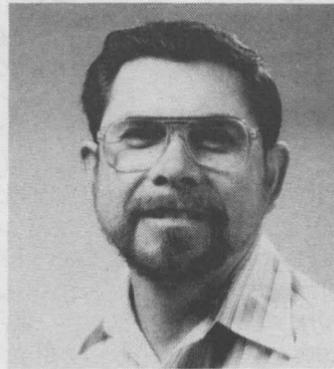
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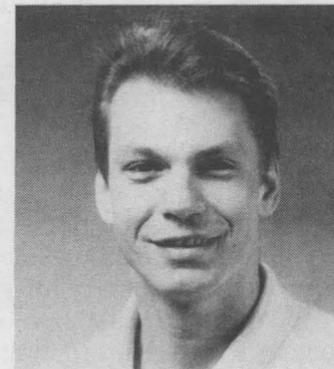
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Ron Kulju 15
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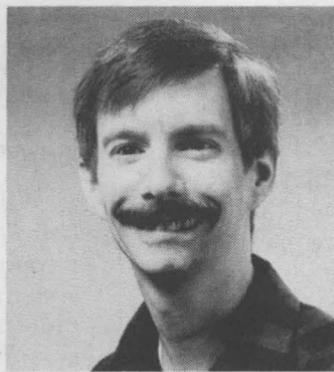
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2314



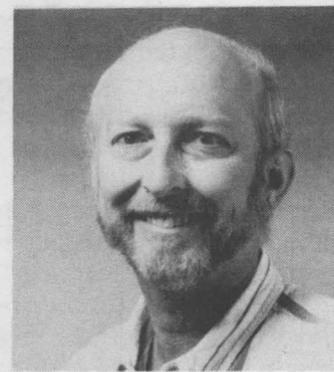
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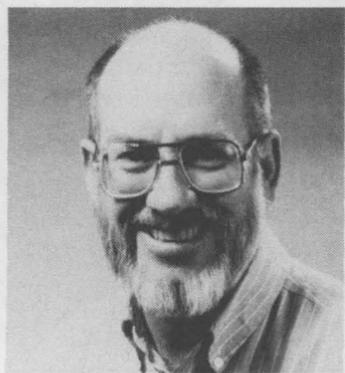
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Jerry Adams 15
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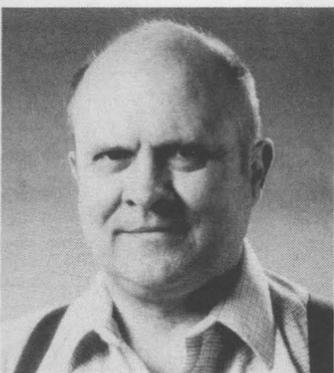
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Ray Thomas 25
2314



Betty Pierce 15
9213



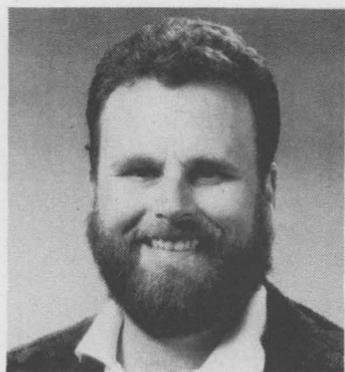
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Glenn Kuswa 25
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Lorraine Solanos 15
10210



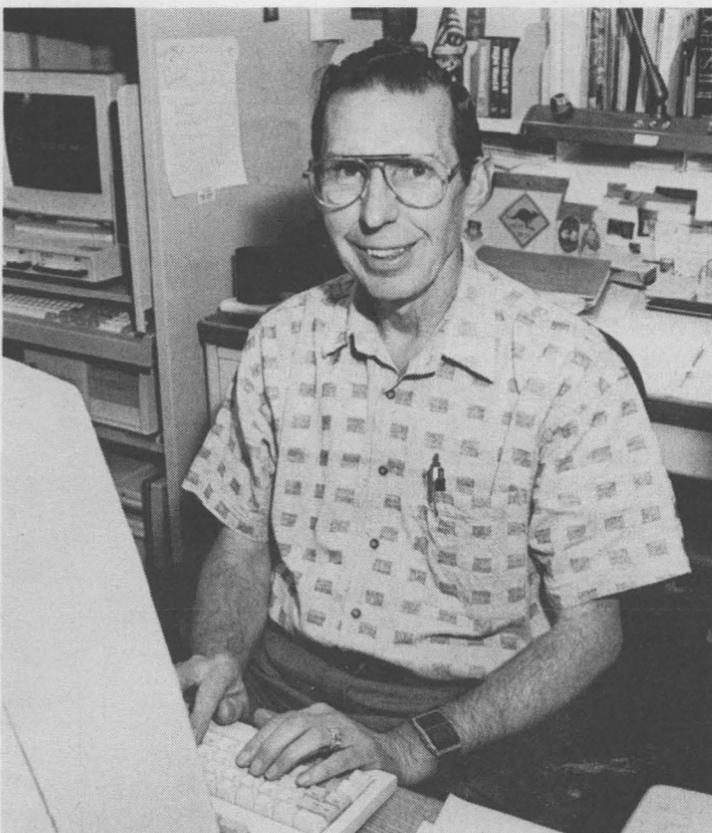
Jeffrey Zirzow 15
6219



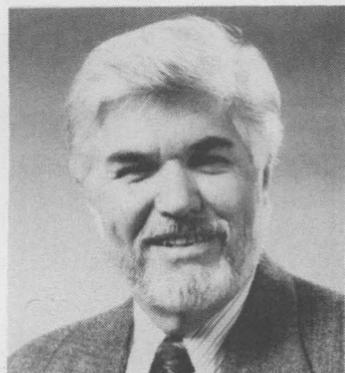
Bill Burnett 35
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Walter Schimmel 15
4211



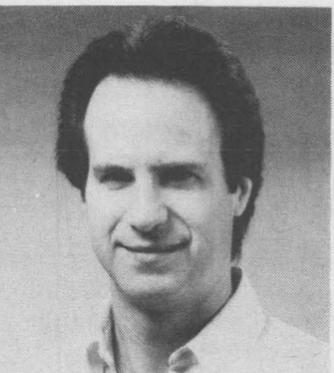
Leroy Thomas 30
9215



Gary Jones 25
6202



Arlee Smith 15
1128



Kurt Wessendorf 15
2235

Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads

MISCELLANEOUS

GLASS DINING TABLE, 40" x 70", \$200; 6 black lacquer dining chairs, \$200; black leather jacket, size 42, w/red & white accents, \$160. Nester, 254-0504.

ENGLISH SADDLE, Crosby Prix des Nation 17", leathers & irons, excellent condition, \$300 OBO. Simpson, 246-2014, leave message.

GOLF CLUBS, Kennex Performer, 4.0 graphite shafts, 3-PW, \$100; Wilson 4300 International 1, 3, 5 woods (metal), \$30. Davis, 293-7457.

CHILD/PET SAFETY GATES, North States "Supergate"; sturdy plastic pressure-mount, 26-in. height, fits openings 26-42 inches wide, \$21 new, \$17/ea., \$30/both. Schkade, 292-5126.

SOFA, 94-in., pillowed, desert sand color, excellent condition, \$150. Benjamin, 294-3228.

MDX-200 GRAPHITE WOODS, 1, 3, & 5, stiff shaft, \$150; Lynx USA irons, 1-PW steel, regular shaft, \$125; Mizuno driver, all graph, med. stiff, \$50. Stang, 256-7793.

BATTERIES, hearing-aid type 675, Rayovac premium zinc air, 18/\$12. Barbier, 299-1305.

RADIAL ARM SAW, 8-in., \$125; storm door, 36-in., \$35; loveseat sofa bed, \$200. Eversgerd, 897-0544.

SLIDING GLASS DOOR SET-UPS (3), single-pane, includes framework, good working condition, make offer. Semonick, 883-4212.

JVC RECEIVER, RS-5, pair KLH bookshelf speakers, \$30; Sanyo cassette deck, \$15. Guilford, 255-6294.

MAGAZINES, approx. 50 *Popular Science* & *Popular Mechanics*, from mid-50s, free to good home. Prevender, 296-8586.

CHEST FREEZER, Kenmore, 23.1 cu. ft., very good condition, \$200. Hertel, 345-1088.

CHIPPENDALE COUCH & ARMCHAIR, excellent condition, \$300 OBO. Kureczko, 831-4655.

SNOW TIRES, G70x14, white letter side-walls, mounted on wheels, fits GM truck, excellent condition, \$15/pair. Dybwad, 296-9047.

BALDWIN ENCORE ORGAN, w/Bell & Howell cassette recorder, cassette instruction, background tapes, \$500. Peterson, 823-9614.

LOVESEAT, black leather, \$125; antique maple "secretary" desk, \$90. Crooks, 858-1180.

ATARI 1040 ST, color & monochrome monitors, hard drive, lots of games, MIDI sequencer, productivity software, \$400 OBO. Keyser, 291-0395.

WATER SOFTENER, old, \$25; Saab trailer hitch, for '81 & later 900 series, except '90-'91 SPC, \$45. Horton, 883-7504.

DINING TABLE/CHAIRS, white tile, \$350; Ducane propane gas grill, \$100; Maytag washer, \$75; Kenmore dryer, \$50. Shane, 294-4920.

FLAMINGO LOVERS: 21-in. multicolor neon flamingo, new \$150, asking \$75. Lockwood, 298-9563.

TWO TIRES, Yokohama, all-season steel-belted, hardly used, size 185/70 SR14, \$50 for both. Reif, 262-2652.

TURBO TAX for DOS, final edition, never opened, \$25; infant/baby car seat, plastic bath, infant gym, clothes, girl's size infant-2T. de Leon-Maestas, 299-6514.

SCHEFFLERIA PLANT, 7-1/2-ft., (very large), daisy-shape leaf, in white crockery pot, 4-ft. spread, \$65. Montoya, 883-9115.

NINTENDO ENTERTAINMENT SYSTEM, Olympic pad, joystick, remote controller, nine games, \$75 OBO. Barbera, 275-2562.

COMPONENT STEREO SYSTEM, complete, tuner, equalizer, turntable, 2 tape decks, 2 CD players, Polk audio speakers. Campbell, 281-0744, call for info.

HEADBOARD/FOOTBOARD SET, queen size, Southwest style, hand-carved, light gray/sea mist green, must see, \$300 OBO. Garner, 889-3180.

GUITAR AMPLIFIER, Fender Champ 25, all tube, 100-watt, 2 channels, reverb, footswitch, 3-yr. warranty, \$225 OBO. Thompson, 292-2877.

BRASS BED HEADBOARD, twin, w/rails, box spring, like new, \$60; couch, good condition, blue w/throw pillows, \$50. Lippert, 299-6594.

225-AMP ARC WELDER, \$80; custom-made golf clubs & bag, for right-handed player over 6-ft. tall, never used, \$100. Dickenman, 892-9561.

WEDDING GOWN, size 6/8, chantilly lace collar & train, empire waist, full-length mantilla veil, simple but elegant, \$100. Seyfer, 292-0179.

CROSS-COUNTRY SKIS, waxless, 200cm, 3-pin, \$70; ski rack, rain gutter-mount only, Yakima, \$40. Lorence, 275-3586.

PARROT, orange-wing Amazon, tame, gives kisses, has shots, excellent condition, w/cage, \$450. Babcock, 296-2729, leave message.

TREK 5500 OCLV FRAME/FORK, brand new, 58cm, never built-up, retail \$1,000, sell \$600 OBO. Gemmell, 256-9561 or 239-5399.

COMPUTER MEMORY, four 4-meg x 9 Simms, 70ns, \$425; Pioneer laser disk player, \$250. Hatley, 822-8577.

KING-SIZE BEDROOM SET, mattresses, frame, headboard, corner table, nine-drawer dresser, white provincial, \$300. Lohkamp, 866-1607.

RIDING LAWN MOWER, Sears, 36", 10-hp, \$450; Furgesin 3-point, 6' sickle-bar mower, \$150. Bailar, 865-1518.

WATERHEATER, Rheem, 50-gal., LP gas, used 3 months, \$200. Davis, 856-5213.

LAWN MOWER, Sears 20-in. gas-powered, side-bagger, 20 yrs. old, works fine, serviced annually, \$30. Caskey, 294-3218.

OAK BEDROOM FURNITURE, Early American reproduction, 5-drawer dresser, w/ogee mirror, 3-drawer nightstand, like new, \$500. Hass, 299-3506.

MACINTOSH PLUS COMPUTER, 2MB memory, 20MB external HD, modem, miscellaneous software, \$200; bistro-size table, \$60. Porter, 821-7813.

FISHING ACCESSORIES (never used): U-joint motor extension handle, \$25, Fenwick ColorSelector, \$40, Wheatley fly box #1609, \$120. Adams, 821-9079.

NINTENDO GAME SYSTEM, 2 controllers, 10 games, \$100; Kenmore dryer, 110V, \$50; AT&T phone/answering machine, \$30. Rightley, 293-9780.

ALLOY RIMS & TIRES, four used Chev. S-bolt, 14 x 7, \$125 OBO. Maestas, 831-4072, after 5 p.m.

POLARIS SNOWMOBILE, older, runs great, extra parts, \$375; Weber 32/36 DFAV progressive carb, extras, \$100; Brosals dual carbs, \$125. Rob, 866-5422.

CAR RAMPS, to change your oil, used w/Chev. Astro Van, \$8. Henry, 266-6467.

GALLOPING GOURMET Perfection Aire oven baking pan, tongs, skewers, rack, lid-rack, cookbook instructions, excellent condition, \$50. Smith, 299-7151.

COMPUTER HUTCH, simulated oak laminate finish, adjustable shelves for storage & monitor, 39"W x 23"D x 54"H, \$60. Behr, 856-6273.

CONTEMPORARY DINING ROOM SET, teak table w/6 chairs, tweed upholstery, good condition, \$200 OBO. Rieker, 294-8216.

KING-SIZE WATERBED, w/6-drawer pedestal, \$200, w/matching chest, \$275; Cross stepper, \$30. Gutierrez, 275-8228.

FLUORESCENT SHOP LIGHTS, 8-ft. long, w/bulbs, \$25 ea. (6 total); cast-iron sink, 2-well, wall-hung, w/washerless faucet, \$100. Bleakly, 888-4608.

STEREO AMPLIFIER, Jadis Defy 7 Mk II, 100-watt, all new tubes, excellent condition, \$3,000. Grasser, 828-9051.

SOLID WOOD ROCKING CHAIR, oak finish, like new, \$75; cedar chest, padded seat, dark oak finish, \$150; Epson LX-800 printer, \$100. Sandoval, 275-0904.

REFRIGERATOR, 20 cu. ft., side-by-side, \$120; file cabinet, 2-drawer, legal-size, \$35; 30" x 72" banquet table, \$30, all items OBO. Garcia, 293-3937.

MASTER-TILL ROTOTILLER, front tines, 24-in wide, 5-hp Briggs & Stratton gas engine, good condition, \$140. Samlin, 877-5771.

ARTS & CRAFTS FAIR, April 1, Del Norte High School, secondary gym, 10 a.m.-5 p.m., free admission. Austin, 888-3335.

POP-UP CAMPER TRAILER, '91 Palomino Shetland, sleeps 4, propane stove, sink w/water tank & pump, cooler, 12-volt/110-volt system, \$2,400 OBO. Roybal, 836-5062.

TRAVEL TRAILER, '78 Kit Road Ranger, 23', self-contained, second owner, \$4,700; word processor, Smith-Corona PWP3800, 11-in. screen, \$150. Coalson, 298-0061.

HITACHI 19-IN. COLOR TV, cable-ready, \$75 OBO; camper shell, fits LWB, heavy, \$30; camper shell windows, door, free. Zirzow, 281-9896.

GOLF CLUBS, Tommy Armour 845 irons SW-3, Dunlop 1,3,5 woods, deluxe golf bag, all in great condition, \$425. Jaramillo, 864-8153.

KING-SIZE WATERBED, mirrored headboard, padded rails, new heater, \$100 OBO. Gianoulakis, 828-3911.

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Dept. 12622, MS 0413, or fax to 844-0645.

Ad Rules

1. Limit 20 words, including last name and home phone (the *Lab News* will edit longer ads).
2. Include organization and full name with each ad submission.
3. Submit each ad in writing. No phone-ins.
4. Use 8 1/2" by 11-inch paper.
5. Use separate sheet for each ad category.
6. Type or print ads legibly; use only accepted abbreviations.
7. One ad per category per issue.
8. No more than two insertions of same "for sale" or "wanted" item.
9. No "for rent" ads except for employees on temporary assignment.
10. No commercial ads.
11. For active and retired Sandians and DOE employees.
12. Housing listed for sale is available for occupancy without regard to race, creed, color, or national origin.
13. "Work wanted" ads limited to student-aged children of employees.

METAL STORM DOOR, Sears, 36-in., \$50; one-wheel trailer chassis, \$75. Chorley, 296-1454.

B&W ENLARGER, Beseler 23CII, w/50mm Nikkor lens, 35mm & 2-1/4-sq. negative carriers, base, manual, \$200 OBO. Brooks, 275-0056.

LARGE SECTIONAL COUCH, medium brown, queen sleeper/recliner, \$450; La-Z-Boy recliner, extended leg rest, \$175. Both excellent condition. Smith, 292-6425.

CANON A-1 CAMERA, 50mm f1.8, 28mm f2.8, 70-210 zoom macro, flash, filters, case, extras, \$525. Savage, 890-4796.

TRAILER, '88 Nuwa Hitchiker II fifth-wheel, 24-ft., ref. AC, one owner, no smoking or pets. Whalen, 822-0413.

TUB ENCLOSURE, extra nice, heavy, amber glass, \$75; Peerless chrome faucet for tub & shower, \$20. Biffle, 293-7043.

RADIAL ARM SAW, Sears, on casters, \$200. Lorenz, 281-9321.

ALPINE, detachable face, 3-disk CD shuttle, tuner, enter personal code for protection, retail \$800, sell for \$400 OBO. Archibeque, 877-8818.

WHIRLPOOL ELECTRIC STOVE, almond, self-cleaning, excellent condition, \$250; Marcy universal weight machine, paid \$600, sell for \$250. Langwell, 293-2728.

DREXLER BEDROOM FURNITURE: bed, bureau, dresser w/mirror, chiffonier, \$250; Mediterranean-style table, chairs, server, china cabinet, \$1,300. Norwood, 266-2717.

MATTRESS & BOX SPRING, queen-size, \$50; roll-away bed, \$50; high chair, \$10. Clements, 828-2741.

SYLVANIA CONSOLE TV, 25-in., excellent condition, \$100; loveseat, blue, brand new, \$150; two Pygmy goats, \$50/ea. Jobe, 877-0269.

HUNTING RIFLE, Remington 308, w/case, \$275; Toshiba VCR, on-screen programming, w/remote, \$125; baby stroller, \$30. Sanchez, 898-9598.

SOFA, 8-ft., blue/gold stripe, \$100; three blue swivel rocker chairs, \$45/ea.; two twin headboards, \$20/ea. Conley, 298-4672.

SOFA SLEEPER, queen-size, Stratford 3-piece sectional w/recliner, beige, excellent condition, \$750 OBO. Cabe, 857-0639.

SOFA SLEEPER, queen-size, w/matching chair, good condition, great for den or study, one-person owner, \$200. Evans, 292-2367.

CAB-OVER CAMPER, '70 Mobile Traveler, 9-1/2-ft., 3-burner stove/oven, icebox, toilet, very little use, \$1,500. Grenfell, 344-9355.

LEATHER CHAIR, w/ottoman, contemporary, beige; oak entertainment center, 54-in.; Nagel serigraphs, framed commemoratives, No. 8 and No. 9. Davis, 296-6022.

EXERCISE EQUIPMENT: Vitamaster exercycle, ergometer, dual-action, \$60; Powerglide 50 cross-country skier/rower, \$60. Ernest, 293-1757, leave message.

NOSE COVER, '90 Toyota Camry LE, like new, \$50. Eifert, 299-3847.

LARGE SOFA SLEEPER, brown, 3 cushions, wood trim, good condition, \$150; stepper, w/upper body exerciser, \$100. Hubbs, 891-2846.

BUNK BEDS, w/mattresses, sheets, etc., \$175. Wernicke, 237-9332.

CHROME WHEELS, for Nissan, 4 x 4, 6-hole. Padilla, 294-3127.

ANTIQUE SEWING MACHINE, cabinet \$150; Thomas organ, like new, bench, music, simulated instruments, \$300; frames, 10 for \$100. Lloyd, 299-7153.

REAR SPOILER PART for '89 Mustang, V8, like new, \$80. Guevara, 881-3967, after 5 p.m.

TRANSPORTATION

'84 MAZDA PICKUP, w/shell, clean, runs well, \$1,400 OBO. Estill, 268-6730.

'91 TOYOTA CAMRY DX, 4-dr., V6, AT, PW, PL, PS, PB, AC, cruise, ABS, sunroof, AM/FM, 39,900 miles, \$11,500. Precit, 892-6299.

MAN'S 10-SPD. BICYCLE, 27-in., Motobecane, perfect condition, \$300 new, asking \$50 OBO. Griego, 899-1040, ask for John.

'92 SUBARU SVX, A-WD, silver/black, 32K miles, excellent condition, fast, comfortable & unusual, \$17,000 OBO. Pearson, 262-1124.

'66 MERCEDES 230S, 166,700 miles, one owner, well maintained, \$3,500. Tedesco, 888-1068.

ELECTRIC GOLF CART, Kangaroo Deluxe, w/battery charger, two units, \$200 ea.; bicycle, "Puch Odyssey," new condition, \$150. Eifert, 299-3847.

BOY'S BMX BICYCLE, 14-in. frame, hand & foot brakes, \$29 OBO. Bauck, 856-5472.

'90 MAZDA MIATA, "A" package, loaded, 5-sp., low mileage, excellent condition & maintenance, original owner, \$11,500 OBO. Chavez, 821-6180.

'74 INTERNATIONAL TRUCK, AT, PS, runs, \$700. Carlson, 888-4970.

'78 TOYOTA SR5 PICKUP, 5-sp., engine new in '91, rebuilt transmission, needs tuneup, tires, brakes, battery, \$1,000 OBO. McCutcheon, 836-2854.

'92 BUICK REGAL, Gran Sport Sedan, 12K miles, 3,800 V6, ABS, fully loaded, one owner, adult-driven, \$15,500. McIntosh, 292-3740.

'91 FORD PROBE LX, V6, AT, loaded, 45K highway miles, ABS, alarm, clean, new tires & brakes, \$9,200 OBO. Zaorski, 281-9194.

'92 TOYOTA PICKUP, 5-sp., AC, PS, stereo, low mileage, red, below book, \$7,700 OBO. Padilla, 294-3127.

'81 OLDS 98, needs work, make offer. Archibeque-Guerra, 256-1356.

'89 MAZDA MX-6-LX, 2-dr., 5-sp., 55K miles, AC, AM/FM cassette, PW, PL, sunroof, cruise, excellent condition, \$7,900. Porter, 821-7813.

'89 CHEV. CORSICA, V6, PS, PB, AT, AC, cruise, tilt, 21/30 mpg, PW, PL, w/"CL" package, 63K miles, white/tan, \$5,600. Martel, 293-1892.

'84 PONTIAC 6000 SE STATION WAGON, V6, wonderful car, 100K miles, good tires, well maintained, AC, PW, PD, \$2,600 OBO. Twitchell, 292-7193.

'73 VW BUG, \$400. Bailar, 865-1518.

'74 SCOUT II, 6-cyl, 256, manual 4-sp., new tires & battery, runs well, \$1,800. Bleakly, 888-4608.

'67 VW BUS, second owner, excellent condition, 35K miles, rebuilt on 1,641cc dual-port engine, 25-mpg, \$2,700. Sturgeon, 281-9035, after 5 p.m.

'90 EAGLE TALON Tsi, turbo, all-wheel drive, loaded, excellent inside/out, runs excellent, under warranty, 66K miles, \$9,400. Adelman, 899-8699.

'92 PLYMOUTH VOYAGER, extras, excellent condition. Atencio, 897-2189.

'83 PORSCHE 944, champagne, tinted power windows, sunroof, AM/FM cassette, AC, looks and runs great, \$6,000. Jobe, 877-0269.

'72 OLDS DELTA 88, 455 engine, 147K miles, all records, second owner, very reliable, used daily, never hit. Kureczko, 281-8206.

'90 PONTIAC GRAND AM SE, 2-dr. sport coupe, AT, fully loaded, 48K miles, excellent condition, \$8,200. Brady, 292-0487.

'91 CHEV. PICKUP, long bed, 111,248 miles, red, AT, AC, PS, PB, excellent condition, \$8,000 OBO. Trillo, 889-3675.

'85 FORD TEMPO, 112K miles, runs well, body & tires very good, AT, PS, PB, front-wheel drive, \$1,295. Grenfell, 344-9355.

'71 CADILLAC SEDAN DEVILLE, very good condition, second owner, low miles, strong 472 V8, drives like new, gold, \$2,200. Davis, 296-6022.

'68 FORD 3/4-TON TRUCK, w/camper shell, 360 big-block, runs real strong, \$2,000 OBO. Carroll, 298-1672.

'86 GMC JIMMY S-15, 4-WD, PW, PL, 77K miles, excellent condition. Hubbs, 891-2846.

STARCRAFT BOAT, 12-ft. aluminum, car-top, w/4.5 hp Mercury outboard, single-person loader, \$650. Ross, 821-6366.

FIBERGLASS CANOE, 17-ft. aluminum-reinforced, w/1/2-hp electric motor, battery, oars, life jackets, \$500. Dickenman, 892-9561.

REAL ESTATE

2-BDR. FLORIDA CONDO, 2 baths, Estero Island Beach, Gulf Coast, Jan. weeks 3 & 4, RCI, reasonably priced. Watkins, 884-7015.

HOUSE FOR RENT, near UNM, W/D, basement w/study, \$400/mo. + half utilities, available March 1. Larson, 293-3524.

SIVAGE THOMAS HOME in Park West, brand new, just completed, lots of upgrades, beautiful views, available immediately. Owens, 836-7802.

5-BDR. SIESTA HILLS HOME, 2,700 sq. ft., 2-1/2 baths, must see, has everything, walk to work, \$225,000. Barnett, 281-9056.

3-BDR. HERITAGE EAST HOME, 1-3/4 baths, 1,800 sq. ft., La Cueva High School district, open floor plan, great location, \$139,000. Gallegos, 821-3611.

3-BDR. HOFFMANTOWN BRICK, 2 baths, office, solar, 2,010 sq. ft., corner lot, across from Inez Park, \$129,500. Marks, 275-3274.

10 ACRES, Angel Fire, w/view of valley and ski slopes, underground utilities, great for home or investment. Shirley, 292-1308, ask for Oscar.

5-BDR. EAST MOUNTAIN ADOBE HOME, w/clearstory, 2 baths, 2,400 sq. ft., 1.3 acres, 300-sq.-ft. storage building, \$165,000. Wernicke, 237-9332.

WANTED

COPY of the book *Sandia National Laboratories: The Postwar Decade*, by N. S. Furman, 1990. Porter, 821-7813.

BICYCLE TRAILER, for towing kid(s) behind bike, single or double, must have top (canopy), good condition. Plut, 298-3060.

STORAGE SHED, storage shelves, cabinets, lockers; basketball goal w/pole, jungle gym/swing set; pool table; pinball machine. Romero, 255-3782.

RIDING MOWER or small tractor, good running condition, 10-hp minimum, large mower deck preferable, other attachments welcome. Cocain, 281-2282.

BEDROOM DRESSER, 4- or 5-drawer, small, light wood preferred. Dickenman, 892-9561.

HOUSE TO RENT, unfurnished, 3-bdr., at least 1-3/4 baths, available either May 1 or June 1. Archibeque-Guerra, 256-1356.

CASING MATERIALS for shallow irrigation well (2"), new, used or reconditioned, 1-hp pump, fittings, hoses. Menicucci, 842-6330.

EVERETT TRENCHER, to fit Ford 8N farm tractor, strongly prefer complete working unit, will consider all. Rob, 866-5422, evenings.

HOME/CABIN, 1-year lease, private-secluded area for professor on sabbatical. Gallegos, 266-3271.

JURASSIC PARK TYRANNOSAURUS REX, roaring & stomping, electronic-sound dinosaur. Garcia, 897-1731.

POTTER'S WHEEL, electrical or manual, new or used, any model, reasonably priced. Mensay, 891-8409, evenings.

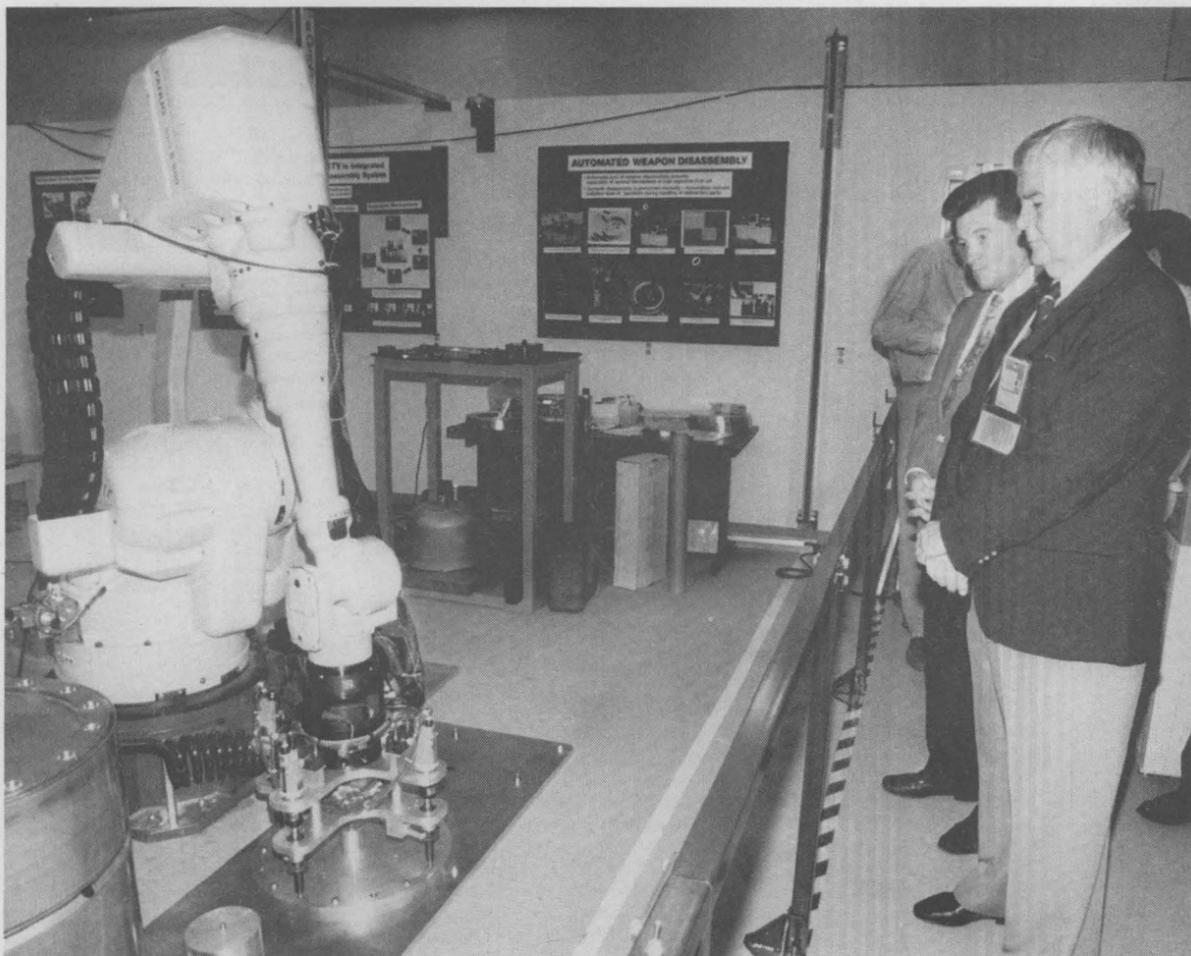
AUTOMOBILE LUGGAGE POD, rooftop, Yakima or Thule-type, narrow, 2-ft. wide, any length, any condition. Tschida, 898-8691.

OLD SWING SETS, similar scrap steel tubing, no galvanized. Hansche, 281-5623.

MPG/MAINTENANCE EXPERIENCES on Ford Super/Crew diesel/gas trucks, all engines, years, transmissions, drivetrains encouraged. Zirzow, 281-9896.

LOST & FOUND

FOUND, black high heels, call Lost & Found in Benefits, 844-9272.



NIBA AGREEMENT — Wayne Chatten, right foreground, Executive Director of the National Indian Business Association (NIBA), and Richard Bloomfield, NIBA board member and Executive Director of the American Indian Chamber of Commerce of Texas, inspect the "Lightning Bolt," a robot that packages nuclear waste components. The two toured the Intelligent Systems and Robotics Laboratory when they visited the Labs for the signing of an agreement between Sandia and NIBA. NIBA is a nonprofit association whose mission is promoting Native American business development. According to the terms of the three-year agreement, signed by Chatten and Sandia President Al Narath, NIBA and Sandia will collaborate on projects to enhance the technological capabilities of the American Indian business community.

PIQ (Property Intelligence Quotient) answers

(Story and questions on page four.)

- (1) **False** — The "R" stands for Reimbursable and applies to any property acquired in connection with a reimbursable contract (one that is funded by a source other than Sandia/DOE). When this property is no longer needed to perform the contract, the owner "sponsor" must give directions for disposal.
- (2) **(b)** 180,000 is the correct answer, and **(d)** "who's counting?" is a staff of four full-time inventory people under the supervision of Shirley Ramirez (7617).
- (3) **(c)** It is equipment that belongs to someone other than Sandia/DOE (see answer to first question).
- (4) **False** — Although the Enhanced Property Management System is designed to be used by everyone with access to the Laboratory Information System (LIS), it is an on-line property-tracking system designed to assist you and property management staff by providing an easily accessible record of information about property assigned to you; a method for efficiently tracking movement of your property, especially useful when you are locating property for inventory; and a method for recording changes in ownership or possession when you transfer property assigned to you. Your property coordinator should be sufficiently familiar with the system to answer questions; otherwise, call the Property Hotline on 844-8691.
- (5) **(d)** The manager, officially; however, the individual involved should take it upon himself or herself to ensure it is done properly. Property Management Systems Dept. 7616 also gets involved when mistakes are made. Note: Gate pass procedures are being modified now, so look for the upcoming *Property Management Communication* outlining proper procedures. In the meantime, see the August 1994 issue of *Property Management Communication*, Volume 15, No. 6, for details about current procedures.
- (6) **(a)** Clearing of all software and stored data is the correct response. After Reapplication receives it, and before it is reutilized, it is checked further (as is all property) for potential contamination from hazardous materials.
- (7) **(a), (b), and (c)** EPMS should be updated whenever property is moved, changes "ownership," or changes possession. Upon any of these changes, notify your property coordinator, who will update the proper listing in EPMS. Note: When it is determined that property is lost or stolen, promptly report this to your supervisor, your property coordinator, and Personnel Security Dept. 7437 on 845-9900.

! Take Note

The Rio Grande Minority Purchasing Council (RGMPC) will hold its annual Trade Fair on Thursday, March 9, 9 a.m.-4 p.m. at the Albuquerque Convention Center. The RGMPC will provide hourly round-trip bus service; buses will stop at Sandia (starting at 8:30 a.m. at Bldg. 800), DOE, Phillips Lab, BDM, and the Convention Center, so Sandians can see the wares and services of local minority- and women-owned businesses. Sandia sets aside a percentage of its procurements for small disad-

vantaged businesses, women-owned businesses, and businesses that the Small Business Administration has certified as small minority companies. For more information, call Suzette Beck (10203) on 271-4244.

Retiring and not seen in *Lab News* pictures: Hazlet Edmonds (9309), 28 years; James Hoffman (1208), 33 years; Luther Otero (2742), 36 years; John Sarkis (2783), 33 years; and Duane Stenberg (6643), 20 years.

Coronado Club

March 3 — Friday night dinner/dance. Dinner, 6-9 p.m. Filet mignon, \$11.95; grilled halibut, \$10.95; all-you-can-eat buffet, \$7.95. Music by Isleta Poorboys, 7-11 p.m.

March 5 — Sunday brunch buffet, 10 a.m.-2 p.m. Tea dance, 1-4 p.m., music by Best Shot.

March 9, 16, 23, 30 — Thursday bingo nights. Card sales and buffet start at 5:30 p.m., early birds' bingo at 6:45 p.m.

March 17 — St. Patrick's Day dinner/dance. Dinner served 6-9 p.m. All-you-can-eat buffet plus corned beef and cabbage. Music by Joe Sais & Showcase, 7-11 p.m. Reservations required.

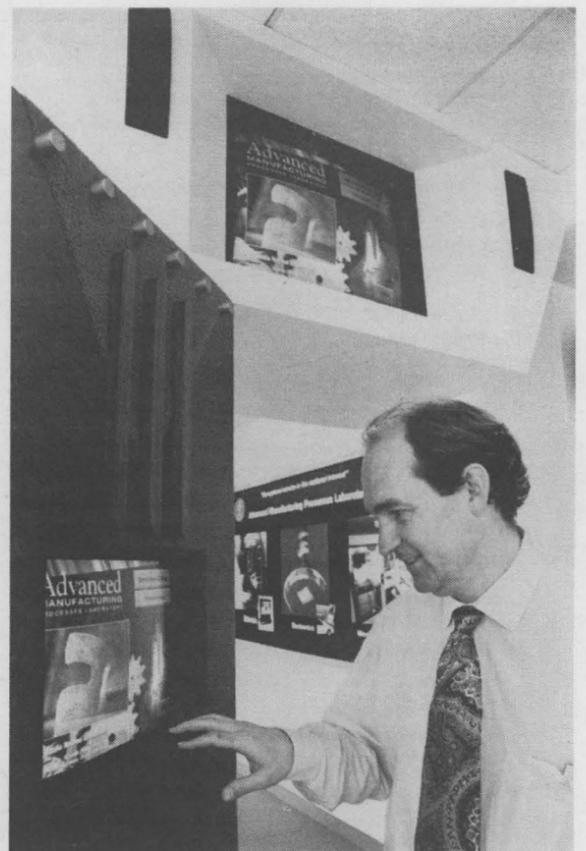
March 19 — Sunday brunch buffet, 10 a.m.-2 p.m., \$7.95. Tea dance, 1-4 p.m., music by Los Gatos.

March 24 — Kids' bingo night. Buffet, 5 p.m., with cartoons and movies. Bingo starts at 7 p.m. Free hot dog and soft drink for all kids playing bingo.

March 31 — Friday night dinner/dance. Dinner, 6-9 p.m. T-bone steak or fried shrimp, \$11.95; all-you-can-eat buffet, \$7.95. Music by Isleta Poorboys, 7-11 p.m.

Fun & Games

Golf — The Sandia Womens' Golf Association will hold its Annual Membership Drive on Wednesday, March 8, at 4:45 p.m. in the Coronado Club's Zia Room. Interested golfers of all skill levels are encouraged to attend. For more information, contact Alice Montoya (9321) on 821-5189.



MULTIMEDIA GREETING — John Sayre of Manufacturing Program Development Dept. 2403 demonstrates a new interactive, multimedia touch-screen display in the Bldg. 878 lobby. He says the display is designed to welcome visitors and showcase technologies being developed in the building, which hosts three or four tours a week. The display includes a graphical directory that helps visitors find building occupants, as well as several two-minute video clips featuring Sandia's work in virtual reality, advanced rapid prototyping, flat-panel displays, circuit board testing, and the National Machine Tool Partnership. For information about interactive displays for other buildings, contact Linda Gillis of Interactive Media Dept. 12616 on 844-7964.