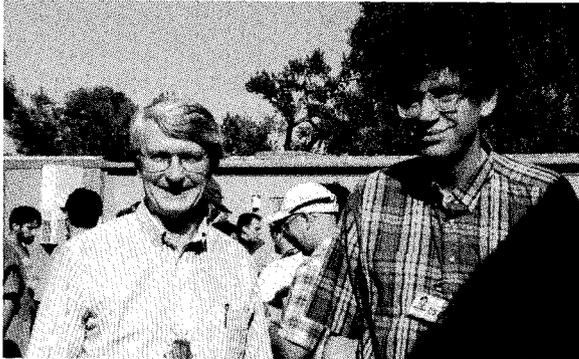


SLAC is operated by Stanford University for the Department of Energy

PEP-II and BaBar Detector Reach New Records



John Seeman and Tom Himel (l-r) of SLAC's Accelerator Operations Group, pictured at the October celebration.

THE FIRST PEP-II RUN with the BaBar detector installed started in late May and was completed on October 4, 1999. This run was successful beyond anyone's imagination. A few statistics should make this clear. The luminosity reached a peak of 1.4×10^{33} per square centimeter per second. This compares to the previous world record (held by Cornell) of 0.83×10^{33} and is nearly half of the PEP-II design value of 3.0×10^{33} . At this luminosity, about one and a half B events are produced per second. Luminosity can be defined as the rate at which interesting events occur, in this case, the β mesons.

The best day's integrated luminosity was 64 inverse picobarns. This sweeps the previous world record (also held by Cornell) of 42 inverse picobarns.

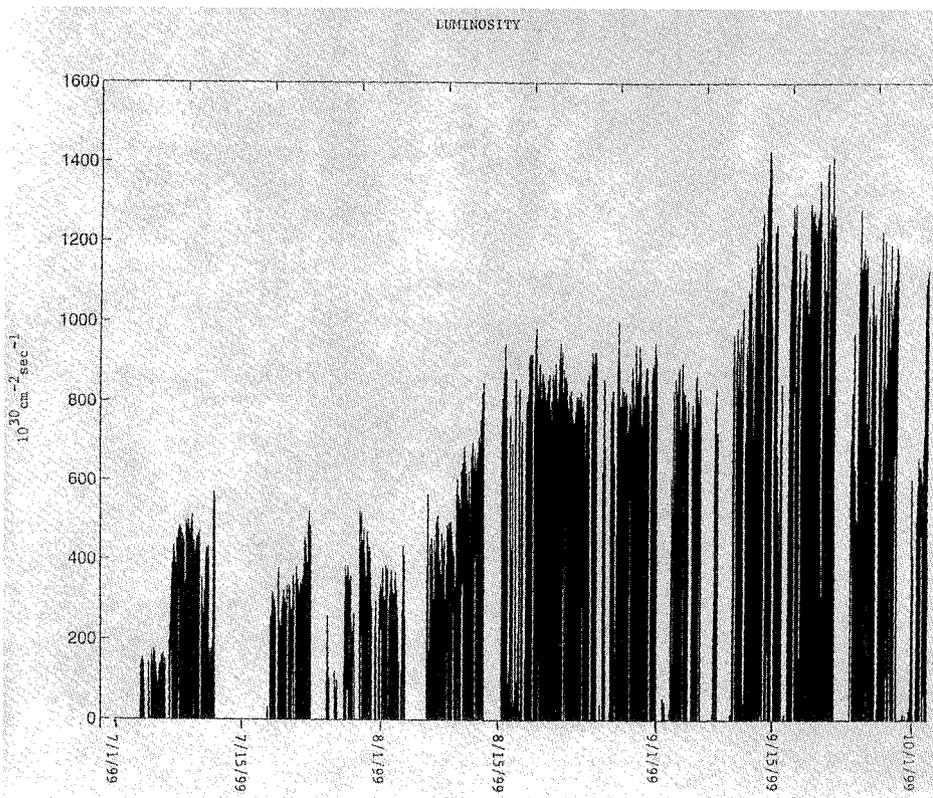
The total luminosity integrated during the run was 1500 inverse picobarns, of which 1270 were recorded by BaBar. This corresponds to about 1.5 million B events produced.

Note that the above luminosity values include a recent calibration of the luminosity monitor that was not included in the record value given in last month's *Interaction Point*. This raised our estimate of the luminosity.

The figure at the left shows the luminosity as a function of time from July through October. Note the steady upward trend as we learned how to better operate the accelerator. The periods with zero luminosity are generally times scheduled for machine development. That's when we work on a better understanding of the accelerator to improve its performance.

We just completed a downtime the first two weeks of October and are now continuing the commissioning of the accelerator and accumulation of luminosity by the detector. During the downtime the remaining quartz bars of the BaBar Cerenkov detector (DIRC) were installed and some other repairs were made. Some vacuum improvements were made in the Low Energy Ring and dozens of other improvements and repairs were implemented.

-Tom Himel



Director's Corner



by Jonathan Dorfan

I'm pleased to begin this new method of sharing some plans for the Lab. In this article I'll outline four topics that were discussed at a recent retreat of the Directorate. These topics do not have easy solutions and

will need more iterations before they can be implemented. Before outlining these topics, I would like to take the opportunity to pass on Renee's and my best wishes for a happy holiday season and a healthy and prosperous 2000.

Communications

In my All Hands message, I mentioned a desire to improve communications. The subject encompasses a wide variety of functions, many of them interrelated, some rather disjoint. We will set up a Task Force with two goals: first, to develop a clear understanding of what the strengths, needs and deficiencies are in each of the functional areas and then to develop a detailed master plan for how we can improve. In gaining an understanding of the current situation, the Task Force will gather up-to-date information and solicit input from the staff.

There are several basic areas to consider. One is communication associated with running the lab efficiently, such as how information is transmitted up and down the management chain. Knowledge is empowering at all levels in an organization. We need to improve this information transfer and the question is how best to do it. At the same time, we all need to re-commit ourselves to and live by the maxim of respectful communication.

Another aspect of communication is dissemination of general information about life at SLAC. This is currently achieved through *The Interaction Point*, the *Bulletin*, and other publications. I'm concerned about the scientific and technical literacy of those who work here at the Lab. I want everyone to know about our scientific accomplishments, to be able to understand and talk about what we do with friends and neighbors, and to be ambassadors to the community. We can do more with public outreach, including legislators, public officials and the media. Lastly, Lab staff members have a lot to offer in the area of educational outreach through involvement with children in K-12 and science teachers.

I anticipate establishing the Task Force in January with the expectation that they can complete the job by the summer of 2000.

(Continued on Page 4)

Carl Rago is a Happy Man

"HEY, I GOT STOPPED by one of our security staff! This is great, the first time in 23 years," said Carl Rago, from the NLC group. No, it wasn't a parking ticket or a speeding violation. Rago was recently seen by security staff transferring computer equipment into his car. "I was delighted," he adds.

Rago produced the paperwork to show that the computer equipment was in fact his own, and not SLAC property. Within minutes he was on his way. "The security staff were terrific, very professional." So why would anyone be "delighted" to get stopped and questioned about moving equipment?

"This is a budget issue, this is a jobs issue," said Rago. He explained that the more we can control theft, the better we all are. Head of Security Rick Yeager confirms that our rate of stolen and unrecovered property has decreased dramatically.

"From fiscal year 1997, our rate for stolen and unrecovered property has decreased by 89%," said Yeager. "That's pretty remarkable." The decrease in theft is attributed to a number of things, according to Yeager's records. More foot and mobile guards patrol the site. Camera surveillance has been added in sensitive areas such as the Computer Building. Ongoing publicity to raise awareness is another aspect of controlling theft. "You can't discount other major factors such as the aging of the population and the general economic prosperity of our region and the country," said Yeager. "All these factors add up and we're frankly happy about it." Just like Carl Rago.

—P.A. Moore

SLAC Food Drive Kicks Off



MARY PARISH AND PAT Prickett (pictured above, l-r) would like to see this year's Food Drive and Toy Drive do better than ever. Let's see if we can top last year's 1277 pounds of food. The barrels will be around SLAC until December 20. Call Parish at x2782 or Prickett at x2392 if you need to find a barrel or a specially-marked shopping bag to fill up.

P.S. Don't forget the SLAC Christmas Party on December 16 at the SLAC Cafeteria.

28th Annual SLAC Run, Walk, 'n Roll

ON A BEAUTIFUL NOVEMBER day at SLAC, 53 runners, 6 in-line skaters and 34 walkers celebrated their fitness by competing in the SLAC race around the Klystron gallery. The event was made possible by the help of some two dozen volunteers and further energized by the presence of SLAC Director Jonathan Dorfan.

Having recently turned 50, the seemingly-ageless Bobby McKee won the running event at a pace just under six minutes per mile. Another ageless wonder, 72-year-old Bob Gex, completed the course for the 21st time, an ongoing record. As a retiree, maybe Gex was able to do more training than the rest of us.

Micki DeCamara repeated as the overall winner among women despite a recently torn calf muscle. Second among the women (and first among women over 40) was veteran SLAC racer Karen Fant. Showing her competitive spirit, Fant put on a sprint when Stephen Wagner tried to overtake her near the finish.

Knut Skarpaas VIII repeated as the overall winner among in-line skaters and set a new course record in the process. Skarpaas invested in some high tech skating equipment since last year and covered the 3.8-mile course 42 seconds faster. "I calculate that I spent about \$15 per second for the improved time," says Skarpaas.

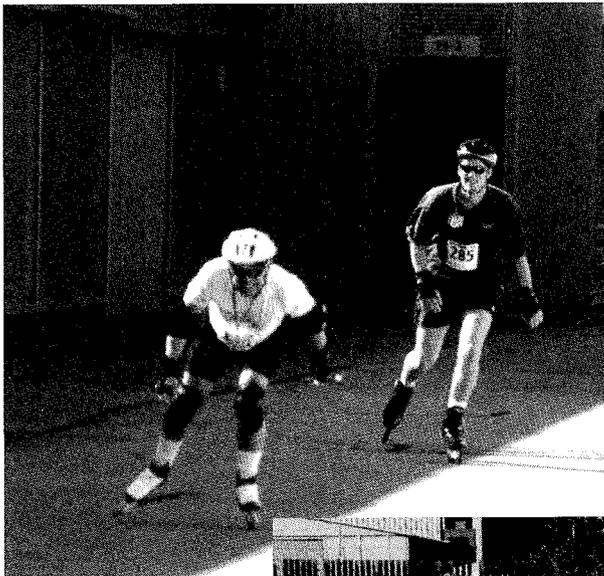
Complete SLAC race results can be found on the web at: <http://www-project.slac.stanford.edu/slacrace/results/results.html>.

-Bob Traller

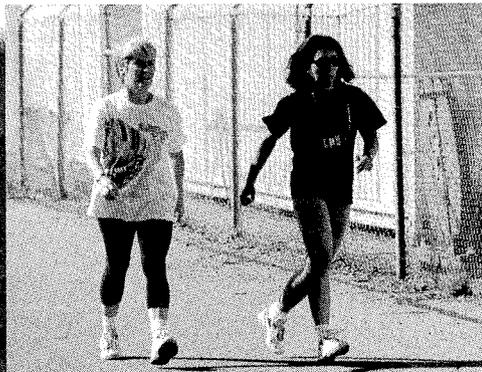


Overall Winner Bobbie McKee (r) is congratulated on his victory by Lab Director Jonathan Dorfan (l).

(Photos Courtesy of Milo Lewis)



Watch out, Vince! Villanueva (l) kept up his great style to come in second on rollerblading, leaving Bryan Harris (r) 2 seconds behind at the finish line.



Yo Wackerman and Ziba Mahdavi (l-r) show a strong pace for the walker category.

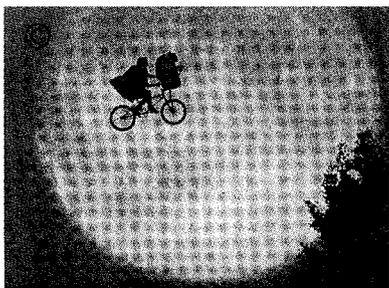


Like a well-oiled machine, Bob Gex, winner in his age category, comes over the finish line with a time of 50:16.



Some of the winners are...(l-r) Vince Villanueva, Knut Skarpaas VIII, Paolo Grosso, Brenda Martino, Micki DeCamara, Dave Bostic, Thomas Schietinger, Jim Allan, Bobby McKee, and Doug Keeley.

ET Story Revealed (Somewhat)



IT WAS SUCH AN innocent question. Dave Coward, formerly of Group C, saw SLAC's name in the credits for the movie "E.T. - The Extraterrestrial" and asked what SLAC contributed to the movie. The patient reader will have to wait until the end of this discursive article to find out (or jump ahead and miss all the context, but that's your choice).

The movie came out in 1982. Drew Barrymore, an actress in the movie, was about six years old at the time. At SLAC, young students and postdocs like Ken Moffeit and Roger Erickson labored in the bubble chamber group. MCC's Glena Stewart was a scanner, having started at SLAC on Valentine's Day of 1966.

Back in pre-computer days, experiments were recorded on film, and the job of the scanner was to look for particle interactions on film. "There might have been 1000 frames on one roll of film, and we had six machines and we worked all three shifts," according to Stewart. In addition to scanners, the group had programmers, technicians and engineers.

Doug Dupen, in the HR department, says that 1966 was the first year we started taking data. Prior to that SLAC was a construction site established in 1962. "Scanning was a costly, labor intensive process," said



Glenn Stewart was in the BC group when ET was in production.

Dupen. "You can see that computers made a big difference really quickly in how we did physics."

John Brown, head of the scanning department back then, passed away this summer. Marie LaBelle, his right hand gal, has moved to Ohio. No one currently here seems to really remember for sure, but unconfirmed sources say that scouts for "ET" came round SLAC looking for locations and equipment. They saw our scanning table and said "Eureka," or words to that effect.

By 1980, about the time of the movie being in production, the scanning department was on its way out. One shift was eliminated in the early 1970s. Then a couple of layoffs later in the '70s meant a few more scanners departed. By 1983, Stewart had moved into an administrative job and the scanning department was just about defunct.

It is alleged that the movie people paid for the scanning table to be shipped to the studio and back again. Near the end of the movie, when ET is ill and being diagnosed, there's a shot of the scanning machine. And that's how SLAC got its name in the credits of the movie.

Drew Barrymore is still making movies. Roger Erickson and Ken Moffeit are still doing physics. Glena Stewart is a 33-year veteran of the lab, working in the Operations area of the Accelerator Department. The movie is available for rent at your nearest video store. Be sure to stay all the way to the end for the credits.



Roger Erickson was also in the BC group at that time.

-P.A. Moore

Director's Corner

(Continued)

Friends of SLAC

I like the idea of a "Friends of SLAC" volunteer group. I know that there are many areas of the Lab that could benefit from our active retirees, neighbors, and family members. I envision many opportunities for such a group: in celebrations such as Family Day; in education; in contributing articles to publications; and in providing initial and ongoing support to our users. Rachel Claus, our legal counsel, and P.A. Moore, Public Information Officer, are looking into how we would form such a group and what legal issues might be involved. Letters have been sent to recent retirees asking for suggestions.

Space Planning

The Lab needs a mechanism for planning space needs, for responding to space requests, and for arbitrating disputes. We have several immediate requests to consider, plus two longer-term planning tasks, namely

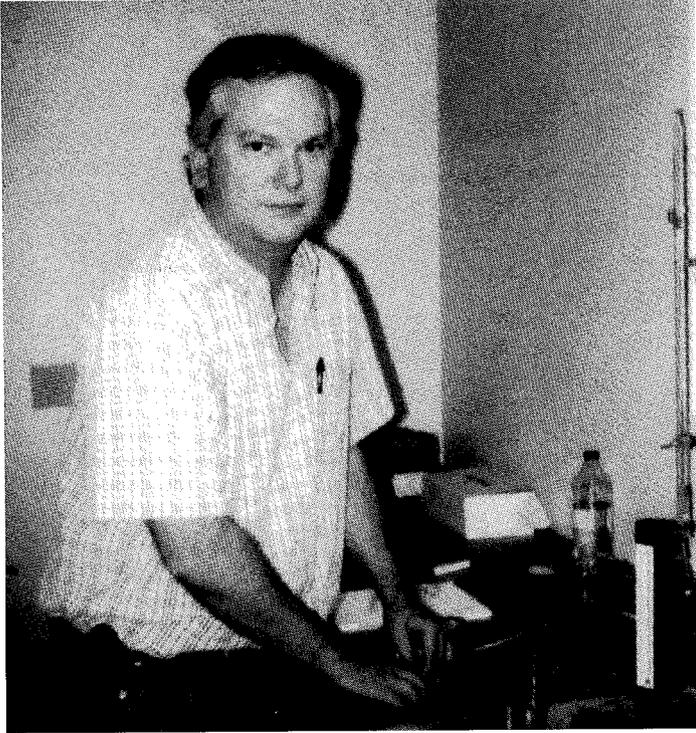
the assignment of space for the new Users building and an understanding of what would be needed in the research yard to accommodate the Linac Coherent Light Source facility. Several ideas are under consideration for implementing an appropriate mechanism.

Efficiency

There are two goals here: to structure the workplace in such a way that it enables, rather than hinders, people's ability to get the job done. The second is to see if efficiency can lead to savings. The Associate Directors have been asked to individually catalog suggestions for streamlining procedures and processes. In a process still to be worked out, we will seek focused input from the staff.

Stay tuned for more on these topics.

Planning to Demolish or Renovate a Structure? Better Call An Industrial Hygenist First!



IF YOU ARE PLANNING to demolish or renovate a SLAC structure, you should contact John Shepardson, an industrial hygienist in the ES&H Division. A licensed Asbestos Inspector and Management Planner, Shepardson is responsible for determining the presence of asbestos at SLAC.

Asbestos can be present in building material such as transite board (a combination of asbestos and cement, usually light to dark gray in color), plaster, pipe insulation or floor tiles. For that reason, before demolition or renovation of any structure can begin, Shepardson must determine if asbestos exists. If asbestos is present, Shepardson is responsible for coordinating removal or repair with an asbestos abatement subcontractor.

For additional information about SLAC policy concerning asbestos, see the Environment, Safety and Health Manual. If you are concerned about the presence of asbestos, contact Shepardson. See the listing for Asbestos on the ES&H Resource List or send email to johnds@slac.stanford.edu.

—Roxanne Jones

Update to Article on Sexual Harassment Advisers

In addition to the resources listed in October's TIP regarding Sexual Harassment Advisers, there is also the Affirmative Action Officer. Sue Von Gee is a resource for individuals with questions, concerns, or problems relating to sexual harassment. She can be reached at x2968 or sgee@slac.stanford.edu.

Richter Celebration

There will be a celebration honoring Burton Richter on Friday, January 21, 2000 in the W.K.H. Panofsky Auditorium at SLAC. Guest speakers will provide insights into Richter's career in science, politics and on the international scene. The day-long symposium ends with an open reception in the Breezeway. In the evening there is a gala dinner by invitation only at the Stanford Faculty Club. Seating will be limited for the symposium and those wishing to register should check upcoming SLAC Announcements for the Web address where symposium information will be posted.

—P.A. Moore



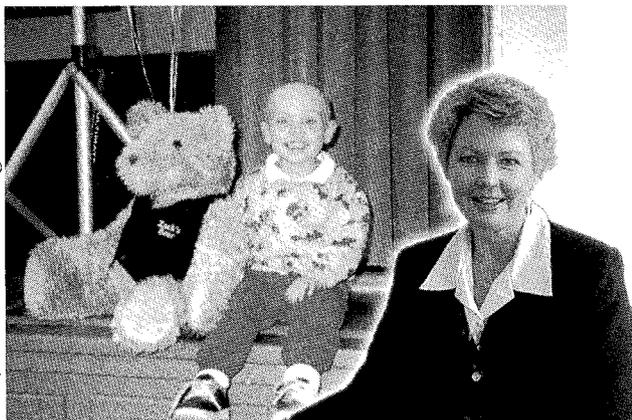
Ed Wilson (PCD) is a man who REALLY enjoys his work!

Work Safe, Work Smart

No injuries involving days away from work have been reported since the last update of 10/15/99, according to Sharon Haynes, Workers' Compensation Coordinator. SLAC's record number of days between claims remains at 150 days.

Bone Marrow Donors Needed

(Photo: Diana Rogers)



Zachary is shown here with his aunt, Regina Matter.

RECENTLY REGINA MATTER FOUND out that her 2 year old nephew, Zachary, has Lymphoma cancer and needs a bone marrow transplant immediately to survive. Doctors have explained that Zachary's case is very rare and they could not find a match for him in the National Marrow Donors Program's National Registry. There are approximately 40 children at Stanford Hospital, along with Zachary, and about 3000 children nationwide waiting for a marrow transplant (for more information on the bone marrow program, see www.marrow.org).

What can you do? More people are needed to donate blood and be tested regarding their suitability as bone marrow donors. Stanford Blood Center is sponsoring a Blood/Marrow Donor Drive at SLAC on December 7, from 8:00 AM to 3:00 PM in the Auditorium lobby. While the marrow test can cost \$65 (tax deductible), for one day only this test is being offered free. The goal is to increase potential bone marrow donors, create better awareness for the need for bone marrow donors, and maybe find a miracle match. If not for Zachary, then maybe for some other child.

SLAC has living proof that by donating a little blood, you CAN actually save a life. Mandeep Gill is SLAC's success story. Gill donated his bone marrow to a matching patient in 1996 and saved a life.

To make an appointment to donate blood and be tested, please call Public Affairs, x2204. You may call (650) 725-9968 with any medical eligibility questions you might have. The whole process to donate blood and be tested takes about an hour.

Please contact Regina Matter (x3783, or regina@slac.stanford.edu) for more information regarding donating to a fund that will pay for future blood tests.

SLAC Staffers Help Fight Breast Cancer



Sharon Haynes and Roxanne Jones (l-r) of SLAC are shown here with others participating in the walkathon: Carol Arnett, Anne Killingsworth and Phuong Jensen.

ON OCTOBER 24, 1999, four SLAC employees, Lori Shewchuk (SSRL), Melissa Stedman (KLY), Sharon Haynes (SHA) and Roxanne Jones (ESH), participated in the five-mile walkathon, "Making Strides Against Breast Cancer." Sponsored by the American Cancer Society, the walkathon was held in San Francisco's Golden Gate Park.

SLAC employees, family members and friends sponsored the walkers. While the walkathon served as a fund-raiser for breast cancer research, it also provided participants with a means of remembering family and friends affected by the disease. In addition to getting a good workout, participants were able to educate themselves by reading facts about breast cancer posted along the route.

There is already talk of participating again next year. So, for those of you who are interested, start training; it's never too early to prepare for a worthy cause!

—Roxanne Jones

January-February TIP

The next issue of *The Interaction Point* will be a combined January-February issue, and will be distributed the first week of February 2000.

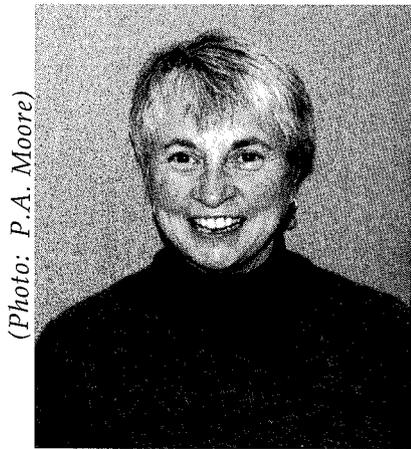
AIP Grant to Process Richter Papers

THE CENTER FOR HISTORY of Physics, American Institute of Physics, has announced that SLAC is the recipient of a grant of \$10,000 to process the papers of Director Emeritus Burton Richter. This grant is part of a major series of eight grants totaling \$73,000 to process and organize collections in physics and allied fields. The 1999 grants are supported jointly by the Richard Lounsbery Foundation and the Friends of the Center for History of Physics.

"This wonderful grant will allow us to process the papers of an important person at an equally important period of SLAC's history," said Archivist Jean Deken. "The grant funds will assist the Archives in arranging the papers from the 15 years of Richter's directorship of SLAC, writing descriptors for the records and developing a guide to the papers that will help future historians."

Other recipients include: California Institute of Technology (to process the papers of Robert Leighton and Robert Walker), Niels Bohr Archive, Copenhagen (Aage Bohr and Allan Mackintosh papers), Princeton University (survey and organize physics collections), Smithsonian Institution Archives (Riccardo Giacconi papers), University of Alaska (Sydney Chapman papers), University of California-Berkeley (Exploratorium records), and University of California-San Diego (Edward Allan Frieman papers).

Meet Employee Relations Manager



(Photo: P.A. Moore)

SUSAN K. HOERGER STARTED in the new position of Manager of Employee Relations and Training on September 1. She has 21 years experience as a labor and employment attorney, 17 of them spent handling various matters on behalf of Stanford University and SLAC. Hoerger's central philosophy in her new position is to

address work and staff situations as early as possible, and to be a resource to employees and supervisors facing troublesome work issues. She is particularly interested in assessing the laboratory's training needs, and learning what classes, seminars and workshops will help employees and supervisors develop and maintain the interpersonal and job skills required to survive and thrive at SLAC. Off duty, Hoerger is an avid traveler (just returned from Botswana; ask to see the snapshots) and grandmother (3 girls so far, a boy due in December, pictures available on request). If you haven't met Hoerger yet, give her a call at x2358 or stop by her office, Room 238 B in the A&E Building.

Interlab '99



Cathy Dager of SCS chats with Interlab participant during social event at the Cantor Art Center.

BEBO WHITE, OF JUG band fame and SCS renown, plays football. Well, a type of football, since he tucked a microphone inside the ball and tossed it into the audience. This was just one of the creative happenings of the fifth annual Interlab Workshop, hosted by SLAC in early November.

"Dennis Wisinski was definitely the best passer on the SLAC team," said White. As the ball mike was caught, or fumbled as the case may be, conference participants were either disconcerted or amused. "Talk into the ball," was the cry from Joan Winters, sidelines coach. One of those speakers was Penny Rummel from NREL, who prefaced her talk with the theme from Star Trek. Her talk? "To go where no browsers have gone before."

The 80 attendees were from trade groups,

industry, government, academia, and from DOE research facilities across the country. Interlab folks good-naturedly argued about current solutions and emerging technologies for Web-related projects at DOE facilities.

This year's themes were "Information and Knowledge Management" and "Web Tools." Chris Lindberg and Lisa Gardner from Los Alamos said that the Web toolbox is overflowing, which is both good and bad. Some tools are not intuitive, some add proprietary information, some cost money. The opinion was definitely mixed.

Highlights of the workshop included a tutorial in XML, talks on custom applications for information management from across the labs, a talk by Paul Kuntz on the World Wide Web, talks by developers from the private sector on useful tools in development, and discussions about ADA guidelines for accessibility of Web pages. Industry sponsor Infoseek hosted a gala dinner at the Cantor Art Center at Stanford Campus, which was a welcome social event.

Presentation materials, streaming media, and other resource materials are linked to the Interlab agenda web page <http://www-project.slac.stanford.edu/interlab99/program/speakers.html>. Next year's Interlab will probably be hosted by Los Alamos National Lab.

-P.A. Moore



At the InterLab99 conference recently held at SLAC, three professionals offered their views of web site accessibility in a panel discussion titled "Applying the ADA to the Internet: A Web Accessibility Standard." (For more information on this topic, see www-project.slac.stanford.edu/interlab99/program/panel-accessibility.htm.) A great description of web accessibility is "anyone using any kind of Web browsing technology must be able to visit any site and get a full and complete understanding of the information as well as have the full and complete ability to interact with the site—if that is necessary." (Chuck Letourneau, www.starlingweb.com/webac.htm) Accessible web sites don't need to be boring or ugly and there are some things we can easily do to improve accessibility.

- Check your web page using CAST's "Bobby" program (www.cast.org/bobby). This will give you an idea of gross errors, but there is still a lot to check to confirm accessibility.
- Attach useful alternative text to images on your page. For example, using alt="Detailed" for a graphic button leads to the home page rather than just alt="button".
- Test your site thoroughly, on a variety of browsers, versions, and platforms. In July 1999, our web logs show about 75% of those accessing the welcome page use some version of Netscape, 24.5% use Internet Explorer, and .5% use some other browser. It is impossible to make the pages look identical on all platforms and versions, but the information needs to be available.
- A final test for accessibility is to navigate your page or web site using Lynx, a line mode browser, or an aural browser, which provides web access for blind and visually impaired users. Tables are often used to format text on a page and, when spoken, the text can be very confusing.

Version	Netscape	IE
5	N/A	24%
4.X	88%	72%
3.X	11%	3%
Other	1%	1%

-Ruth McDunn

Resolutions for the New Year



SLAC DIRECTOR JONATHAN DORFAN recently signed our revised Operating Safety Committee charter, which now more accurately reflects the wide range of functions which the committee has taken on since the early '90s.

The word "charter" is defined by Webster's Dictionary as "constitution."

From your high school Civics class, you'll recall that this term is associated with the concept of freedom. Yet freedom is generally insured by regulations and structure.

Similarly, the OSC members attempt to provide you with freedom from concern or hazardous situations by discussing and understanding the various ES&H rules and regulations which govern SLAC. A 25-member safety committee also uses structure to get things done: monthly meetings at the same place and time; an efficient minute-taker and wide distribution of meeting information; and appointed members who take their responsibilities seriously.

As OSC members, we see our revised charter (soon viewable on the Web) as a confirmation that we are continuing to expand in scope and knowledge. We complement the citizen committees and don't take on tasks better handled by other committees or departments. But we also don't hesitate to take advantage of the freedom we have been given to investigate a very diverse range of concerns, from defibrillators to stop signs!

SLAC Milestones

DECEASED

Laden, William, (retired 1985 from ELD), 10/10/99

RETIRED

Gough, David, SSRL, 10/16/99

ELECTED

Moore, P.A., to Menlo Park Chamber of Commerce as Vice President, effective 1/1/00

PATENT AWARDED

Perl, Martin and **Lee**, Eric, Group E, for work on a droplet maker.

Do you have a milestone you would like published in TIP? Email tip@slac.stanford.edu to have it included.

We depend on SLAC employees to help us use this freedom wisely. As the new year approaches, consider these resolutions: to recognize and appreciate those in the safety field who are committed to helping you; and to call up your OSC contact(s) with at least one environment, safety, or health-related observation of what works or what doesn't. We look forward to hearing from all of you in the Year 2000!

-Janice Dabney