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Secretary of Energy Dedicates B-Factory



Photo Courtesy of Matt Sumner, San Mateo County Times

Secretary of Energy Bill Richardson (l) pushes the red button to dedicate PEP-II while SLAC staff and guests look on.

"The President wanted me to relay to all of you his sincere and profound gratitude for your accomplishment here. What we celebrate today, then, beyond our immediate accomplishment, is the promise of new knowledge that this facility represents and can bring forth."

—Bill Richardson

Rainer's Latest Move



THERE IS NOTHING LIKE a challenge to keep Rainer Pitthan on his toes (as if he isn't tall enough). He has had a distinguished career in many subfields of Physics. The next-to-latest move was working for the NLC with Tom Markiewicz on the Beam Delivery Systems to the detectors. We hear Rainer tries to use a breed of exotic magnets (called Octupoles) in a way not used before at SLAC or anywhere else. Prior to working on NLC, Rainer was Group Leader of EFD for 5 years, dabbling in physics and technology ranging from the very cold to the very warm, from the small to the large and heavy.

Rainer Pitthan first came to SLAC in 1979, from the 120 MeV linear Accelerator of the Naval Post-graduate School in Monterey, to work in Group A on DELCO. Before Monterey he was at the Institute of Technology in Darmstadt, where, interspersed with his Ph.D. work, he was Director of Planning for the University, responsible for (among other things) a 110 million deutsche marks (1970 DM's) emergency budget.

Rainer is most proud of the small town in Southern Hessa from which he hails and where his family has lived for generations. SLAC colleagues who have visited there with him were amazed by the fact that half the town seemed to know and recognize him - 40 years after high school. Rainer thinks most of what he needed to know in Physics he learned in his home town, where the local High School ranked at the

top in the state from sports to music to science. During vacations, Rainer worked on the farms of his father's high school classmates. "Once upon a time I knew how to plow a straight furrow, even with horses," he says.

As Dick Taylor once aptly described him: "Rainer is a classical physicist in the true sense of the word: throw a problem at him and he will use his classical training to solve it." Following this prescription, SLAC seems to throw problems at Rainer for which there is no resident expertise. He often professes to not understand what is being talked about by his colleagues in non-common language. He likes to get the talk down to language an average physicist like himself does understand. Dieter Walz once said:

"For someone who does not understand something, he asks the most pertinent questions." And others (non-physicists) at SLAC call him Dr. Science, because of his succinct explanations of physics to the lay person. John Rees once said to Rainer, "You get faster from the trees to the forest than anybody I know."

Since NLC was the "next-to-latest move" above, what is Rainer up to now? At the end of November he will go to CERN to work on their Linear Collider Project (CLIC) and to continue his ground motion studies of LEP, studies that may have considerable impact for future accelerators. He started these ground motion studies 7 years ago during a stay at CERN. The results greatly improved the performance of LEP. These studies resulted in a conclusion that it is best if accelerators are not built in bedrock. Burt Richter called those conclusions, "The Best-Built-in-Rubble-Principle."

"Will I able to continue my ground motion studies?" Rainer asks. Recent visitors to CERN came back with the dire prediction that CLIC will chain him to a desk to continue the Octupole work for the energy regime toward which CLIC aims, where beam delivery with classical methods will be some 30 miles long.

Physics Books

for Holiday Gifts

HERE ARE A FEW ideas for the readers on your gift list interested in physics.

The First Three Minutes by Steven Weinberg. An easy to read classic on the origin of the universe.

The Physics of Star Trek by Lawrence Krauss. A chance to delve into the real physics that the TV series glossed over.

Genius: The Life and Science of Richard Feynman by James Gleick. A compelling book of both human and scientific interest.

Einstein: The Life and Times by Ronald Clark. Insights about the man and the context in which he lived.

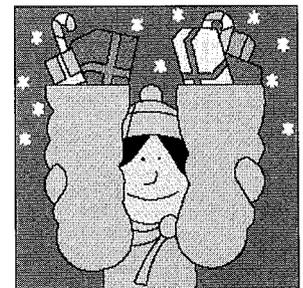
The God Particle by Leon Lederman. Nobel Prize winner writes about particle physics starting in ancient Greece.

The Hunting of the Quark by Michael Riordan. SLAC physicist covers the 20-year search for the quark.

The Search for Infinity by Gordon Fraser, Egil Lillestol and Inge Sellevag. Beautifully illustrated, human touches and short overviews of the field.

The Universe and the Teacup by K.C. Cole. Includes Emmy Noether's mathematical contributions to physics.

The Particle Explosion by Frank Close, Michael Marten and Christine Sutton. A primer on subatomic particles with an easy reference table for exams.



Show your Stanford ID at Keppler's Bookstore in Menlo Park for a 10% discount.

Physicists Unite at Continental Divide

PERHAPS THE 9000-FOOT elevation helped us see the future more clearly. In any case, 160 scientists from the US, Canada, Europe, and Japan gathered in September at Keystone, CO near the Continental Divide to discuss next generation electron-positron colliders.

The Keystone meeting provided the first occasion for American scientists to meet and plan participation in a larger worldwide study of the Physics and Detectors of Future Linear Electron-Positron Colliders. This worldwide study was initiated at an international meeting in July in Vancouver with several specific tasks.

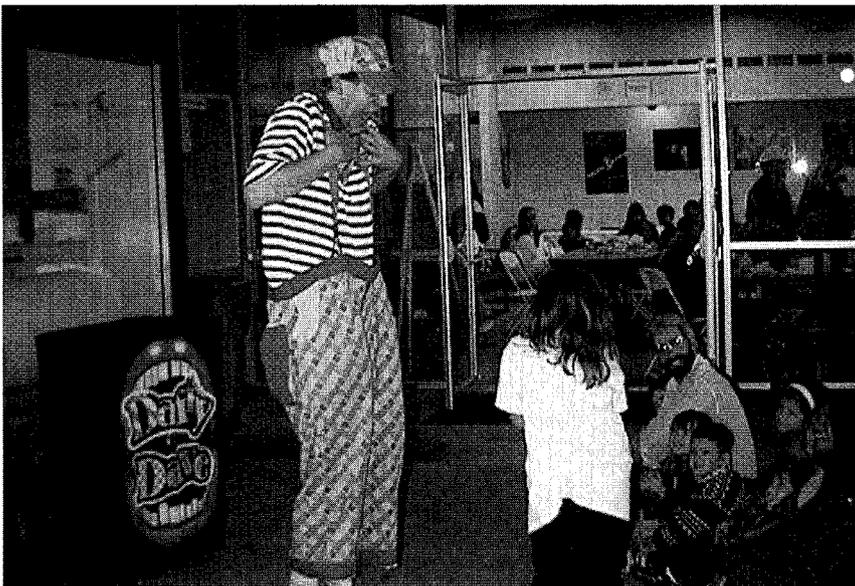
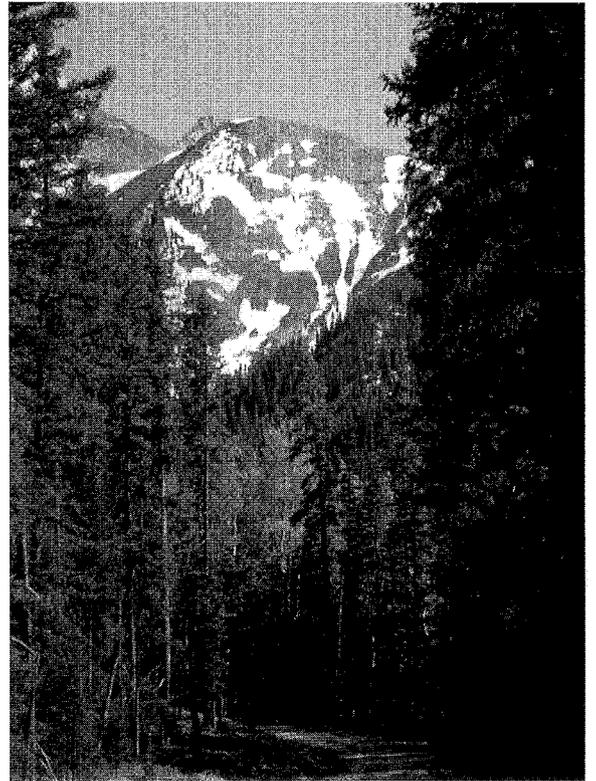
One of those tasks was to focus on the parameters required for both the collider and the detector and provide some guidance on the physics required. To do this, scientists must build an international user community for the experimental program regardless of where in the world the collider experiment will eventually be located. Working groups for physics and detector topics were established.

After a series of plenary talks on the first day, there were talks on the collider R&D efforts, physics, and detector studies in the US, Japan, and Europe. The present state of the Physics of the Standard Model and Beyond and the physics opportunities of future electron-positron colliders were also covered. Informative talks on various detector topics and issues relevant to detector simulation software were presented. The remainder of the meeting was devoted to parallel meetings of the working groups, with the last day devoted to summaries from working groups.

Workshop participants represented diverse fields, with many scientists from outside the usual electron-positron community. The talks and the discussions were informative and well received, and there was a general positive feeling about the studies initiated at the meeting. The next large international meeting on the Physics and Detectors of Future Electron-Positron Colliders (which is open to all interested scientists worldwide) will be held at Sitges, a town near Barcelona, Spain in April of 1999. Similar meetings beyond the one at Barcelona will be held on an annual basis at locations rotating between America, Asia, and Europe.

The weather during the workshop was as close to perfect as possible. Adding to the already marvelous scenery, the Aspen leaves were changing to autumn colors. Details of the workshop agenda can be found at <http://hep-www.colorado.edu/LC/workshop.html>. In addition, transparencies from each talk will appear on the web at the same address.

—C. Baltay and U. Nauenberg

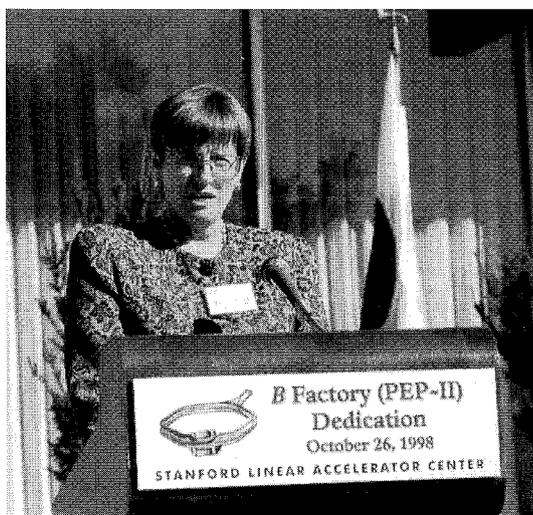


SLAC Celebrates Family Day

MANY THANKS TO KAREN McClenahan and her team for their fine work in organizing the Family Day activities.

Daffy Dave the clown entertains at SLAC's Family Day, October 24, 1998, while an audience including Chuck Boenheim and his children looks on.

(Photo Courtesy of Harvey Lynch)



Martha Krebs, Director of the Office of Energy Research (now known as the Office of Science)

"The PEP-II Dedication was a wonderful success—an important and most memorable day in SLAC's illustrious history. Despite rather short notice from Washington, all aspects of the celebration went off without a hitch. I would like to acknowledge and thank the outstanding efforts of the Dedication Committee. To Greg Loew, who was perfect as the Chair, Nina Adelman-Stolar, Matt Allen, Reid Edwards, Regina Matter, Eleanor Mitchell, P.A. Moore, Marshall Mugge, Michael Riordan, John Seeman, Dale Tate, and Rich Yeager—you were all wonderful! Thanks also to the ushers, the escorts, the Director's Office, the Craft Shop, Public Affairs, SLAC Publications, B Factory Publications, Facilities and Security for their support and help."

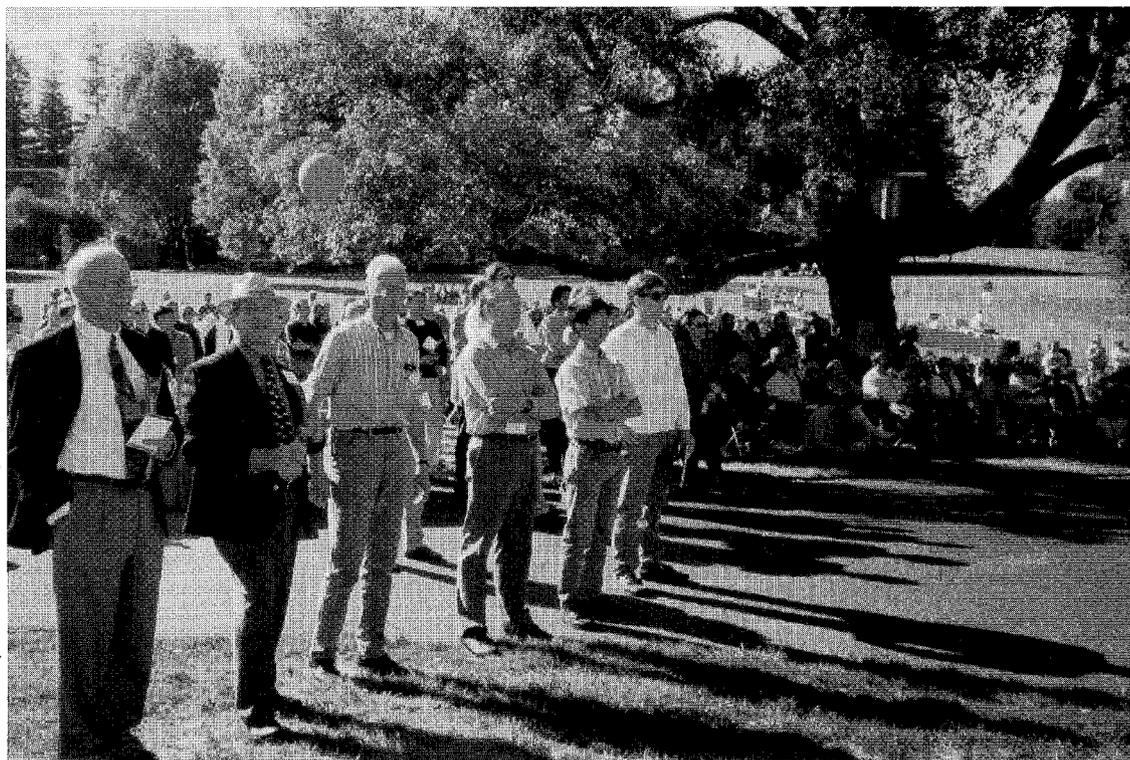
*—Jonathan Dorfan
PEP-II Project Director*

Anna Eshoo and Condoleezza Rice during a break in the ceremony in the tunnel.



(Photo Courtesy of Harvey Lynch)

(Photo Courtesy of Nina Stolar)



The SLAC crowd on Dedication day. The dapper fellows on the left are Matt Allen and Brad Youngman, with Dave Coward looking amused.

Dedication Ceremony

"Welcome to the dedication of the Department of Energy's newest accelerator facility—the SLAC B Factory. DOE is the largest supporter of basic research in the Federal government. Our new machine is part of a complex of facilities all over the United States that allows many scientists to probe the ultimate structure of matter and energy, to understand our universe and why it is the way it is."

—SLAC Director Burton Richter



Pier Oddone (l-standing) from LBNL was acknowledged as the person who originated the concept of asymmetric rings. Applauding are (seated l-r) Mike Witherell from HEPAP, Peter Rosen from DOE, and (r-standing) Karl van Bibber from LLNL.

(Photo Courtesy of LLNL)



The PEP team prior to cutting the cake: (l-r) Tom Elioff, Jonathan Dorfan, John Seeman, and Lowell Klaisner.

"This project owes its on-time, on-budget completion to a wide range of people in the three lab partnership, in DOE, and in Congress. We are grateful for your continued support and cooperation."

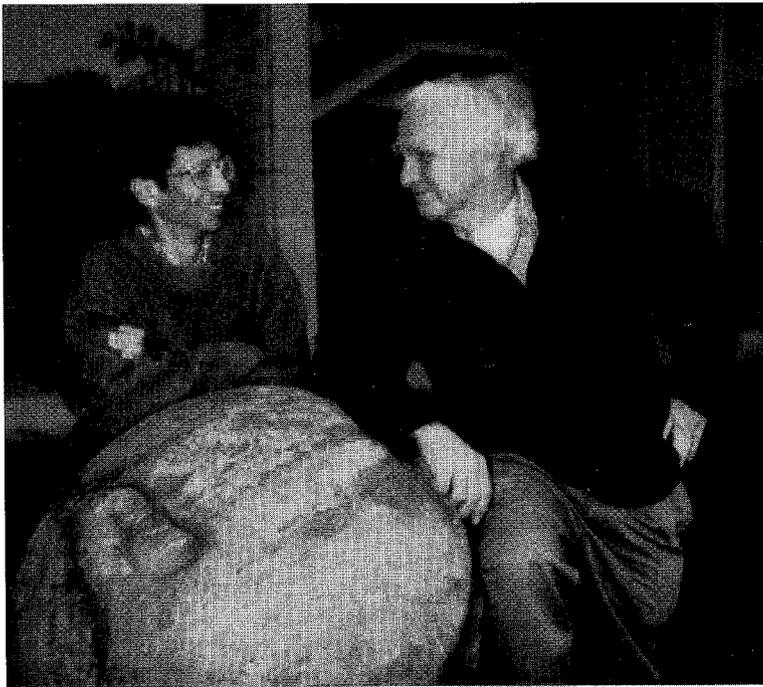
—Jonathan Dorfan



Jonathan Dorfan (at the podium) gave warm acknowledgement to the fine work of the three labs. Applauding are (l-r) Congresswoman Anna Eshoo, Congresswoman Zoe Lofgren, LLNL Director Bruce Tarter, LBNL Director Chuck Shank, and DOE's Martha Krebs.

(Photo Courtesy of John Beech)

Past and Present EPAC Secretaries



Charlie Young (l) and David Fryberger (r) pause to compare notes on the Experimental Program Advisory Committee. Fryberger was secretary to EPAC for 16 years. In that role, he was in contact with almost all of our users, and his judgements and insights were invaluable in developing and operating our experimental program. He became Emeritus this past October after 31 years at SLAC. Charlie Young has been appointed as the next EPAC secretary. Young is a particle physicist in Group A and during his 20 years at SLAC, he has been involved in polarized electron scattering, the DELCO program at PEP, the SLD, the End Station A spin physics program, and (currently) the BaBar Detector.

Just To Keep Track

THOSE OF YOU WHO have called for a Facilities tracking system from past safety discussions are being heard! An Operating Safety Committee task force comprised of John Turek, Rick Challman, Janice Dabney, Ian Evans, Sandy Pierson, Gail Gudahl, and Arla LeCount is developing a "Work Safety Ticket" process with the help of programmer Larry Wong. When completed, this system will be accessible through the Web for SLACers to input safety-related maintenance issues, which will be routed to Facilities. Routing will also include division safety coordinators and appropriate Facilities personnel, who will agree on hazard rating and its resulting prioritization. Requestors will be able to see the progress of their tasks all along the way—no more black holes (except the physics kind!). Stay tuned for more information in future columns.

—Janice V. Dabney

FactinOs

RV Storage Sites Available

A few RV storage sites are available for eligible SLAC staff. To occupy a space, users must pay an annual fee and follow the rules and procedures of the RV Club. Contact Mike Mitchell, President of the SLAC RV Club at x3419 or page him at 846-9923.

On the Move Again

You saw phase I of the office moves to accommodate some of our summer visitors in BaBar. Now we are into phase II, which will include changes to the Central Lab. Stay tuned for more details.

SLAC Merchandise on the Web

Go to the Stanford Bookstore Web page (www.stanfordgear.com) for samples of SLAC merchandise. You can get t-shirts, sweatshirts, hats, and mugs.

Many Happy Returns

While April 15 is still far away, the mailing of W-2 forms is right around the corner. If you have moved recently, notify the Personnel Records staff regarding any change of address. Send e-mail by December 10 to tineke@slac.stanford.edu and to claudia@slac.stanford.edu, or call them at x2366 or x3345, respectively.

Season's Greetings

Put on your party hat and come to SLAC's annual holiday party on Thursday, December 17. If you feel like being Santa's helper this year, call Karen McClenahan at x2265 to volunteer.

TIP on Holiday

The next Interaction Point will be a combined January-February issue. Deadline for submission of articles is January 10 for publication on February 1. If your department/experiment has newsworthy events, we'd like to hear from you! Happy holidays from TIP.

Work Safe, Work Smart

An incident involving days away from work was reported on 10/27/98 according to Sharon Haynes, Worker's Compensation Coordinator. There were 34 calendar days since the last incident on 9/23/98. SLAC's record number of days between claims involving days away from work remains at 150 days.

Neither Rain Nor Sleet Nor Radiation Fencing...

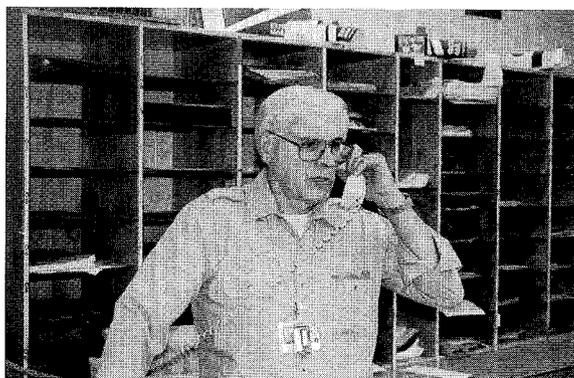


"NINETY-NINE MAIL STOPS divided into three routes, with three full time staff" is a bare bones description of the hard work done by the workers in the mailroom at SLAC, but it doesn't tell half the story.

For example, three mail routes may sound reasonable, but considering the number of people in the Central Lab, it's remarkable that this route only takes an hour. The A&E Building and the Test Lab take about 30 minutes. The killer is the two hours-plus that it takes to cover the area behind the fence. "It's more than two miles long," says Peggy Williams (below, left), who has worked in the mailroom for 10 years. No wonder our mailroom staff appears so slim, trim, and healthy.

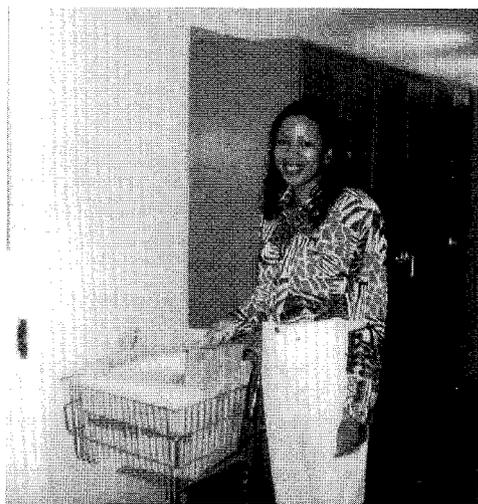
The day starts with sorting the mail, which takes an hour. After the sorting is completed, the routes begin. The afternoon mail sorting is next. "We get three deliveries a day: two from Campus and one from Menlo Park," says Joe Mello (below, right), a five-year veteran.

Peak loads for the mailroom come from big mailings generated by Campus on topics like Total Compensation, Benefits, or required annual updates. Other heavy mail days are Wednesdays, when two newspapers are delivered (the student paper and the *Stanford Report*). "Monday's kind of heavy too, because there's usually some backlog from the weekend," says Rod Harrison (above, left), who has been at SLAC for 17 years.



Since SLAC doesn't have dogs that bite or snow to contend with, what's the biggest gripe for the mailroom staff? "It's the special mail which is registered, certified, express, or needs a signature for some reason," says Joe Mello. If there's no one around to sign for the special mail, the Post Office simply leaves a yellow slip indicating that they tried to deliver. Mailroom staff must then make another trip to collect the registered mail.

What's the big difference between being a SLAC mail carrier and a US Postal carrier? "Thank goodness we don't have all that political mail at election time," says Peggy Williams. What can SLAC staff do to help the mailroom? "Make sure your mail stop is on your mail, it can make a lot of difference," says Rod Harrison.



DiSalvo Wins Annual SLAC Race

THE 27th ANNUAL SLAC Run, Walk, 'n Roll was held under very pleasant weather conditions on November 5, 1998. There were 55 runners, 12 in-line skaters, 31 walkers, and many volunteers who made this a very successful event again this year.

The winner of the run event was Michael DiSalvo, who ran the 3.8+ miles in 22:40. Michael won this race outright three time in the past (95, 94, and 87) and has run in every race since 1985. First overall of the six women runners was Micky Decamara, who finished the course in 26:28. This was Micky's first SLAC run.

Knut Skaarpas VIII won the male division of the in-line skate event with an incredible time of 12:54, beating his 1997 winning time by 11 seconds. Julie Thom, a first time participant, won the female in-line skate division with a time of 20:59.

Thanks go to Terry Anderson for the new SLAC graphic on the back of the shirt.

The volunteer race committee discussed moving this event to the end of October in 1999, to avoid the rains. More information about this event, including photos as well as past results, can be found at the web site <http://www-project.slac.stanford.edu/slacrace>. See you all next year!

—Ruth McDunn



Announcing Announcements

If you want to be notified when a new announcement is posted to the SLAC home page, subscribe to the new SLAC-ANN mailing list. (Follow instructions at <http://www.slac.stanford.edu/cgi-bin/lwgate/SLAC-ANN/>). The e-mail you receive includes direct links to the new announcement, to the detailed home page, and to the announcement archives page (<http://www.slac.stanford.edu/slac/announce/>).

Submitting Conferences

Are you involved in organizing a conference, workshop, symposium, or user meeting that (1) will be held at or sponsored by SLAC and (2) has an established web page? If you would like to advertise the event on the SLAC home pages, complete the form at <http://www.slac.stanford.edu/conf/slaonly/> and the link will appear on the welcome, detailed, and highlighted web pages. There is even a place on the welcome page for the logo to appear for current conferences. Don't forget the services the Public Affairs group provides—their conference management page is at <http://www.slac.stanford.edu/grp/pao/slaonly/conference.html>.

Ruth McDunn

<http://www.slac.stanford.edu/~mcdunn/mcdunn.html>

A Word From Our Fire Marshall

WITH THE HOLIDAYS APPROACHING and increased use of lights and candles, would you know what to do if a fire started? If you are SLAC and face a fire, the first step is to call 9-911 and report the fire. If a fire is small, confined and is not spreading, you may choose to fight the fire if you know the correct use of fire extinguishers. If you have any doubt about the size of the fire or about using the extinguisher, leave the area quickly, closing doors as you go to contain the fire and smoke.

Before you fight a fire, make sure that:

1. You have an unobstructed escape route to which the fire will not spread.
2. The extinguisher is the right type for the fire.
3. You know how to use the extinguisher you have chosen.

Course 108 in Training Opportunities at SLAC (on the web at: <http://www.slac.stanford.edu/pubs/slaonly/trngopp.html>) is the Fire Extinguisher Training and Demonstration Course. This 30-minute course provides an orientation to the safe and proper use of portable fire extinguishers. Proper extinguisher use is demonstrated and hands-on experience is provided for participants.

NOTE: Please call Hope Johnson at x4322 if you have a fire extinguisher on a DOE vehicle. This will allow Hope to track the extinguisher and arrange for it to be serviced. Also, if a fire extinguisher is no longer required (buildings to be demolished or vehicles to be retired/sold), please notify Hope of the extinguisher(s)' location.

—John Mapes

SLAC's Annual Holiday Food/Toy

CHAIRPERSONS PAT BRADLEY (x3522), Mary Parish (x2782), and Pat Prickett (x2392) want you to know that barrels and toy boxes are being put in place for the annual Second Harvest Food Bank holiday food drive and the Red Cross toy drive. Look for the barrels in the main lobby of the A&E building, at the Computer Center, and on either side of the breezeway outside the cafeteria. SLAC has been very generous in donations in past years and the Committee hopes to exceed last year's amount of 1,052 pounds of food. Toys will be picked up on December 14, so please shop early.

SLAC Milestones

MARRIED

Smith, Michelle and Strand, Neil, 9/19/98

RETIRED

Malmstrom, Linda, Purchasing, 11/30/98
Orlando, Sal, EFD, 12/01/98

DECEASED

Daros, Harold, Retiree, 11/09/98
Rinta, Ronald, Retiree, 11/19/98

ELECTED

Frey, Ray, Chair, SLUO Executive Committee

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