First Summer Science Workshop Enthusiastic Success

THE FIRST SUMMER SCIENCE WORKSHOP FOR
physics teachers was held here from July 15 to 19.
Organized by Helen Quinn, the
Science Education Officer at
SLAC, Andrea Ertzberger, from
Palo Alto High School, and
Richard Taylor, from J.J. Pierce
High School in Texas, the work-
shop offered teachers an oppor-
tunity to become familiar with
high energy physics. Morning
lectures and tours were com-
bined with an afternoon session
that showed the teachers lively
and interesting ways of presenting the new material to
their students. During their week at SLAC the 23 par-
ticipants toured the accelerator and detectors, and
were introduced to the standard model and cosmol-
ogy. The workshop, which was originally designed for
high school teachers from the Bay Area, drew people
from as far away as Nevada and also attracted some
college professors who teach introductory-level
physics.

The Northern California Section of the American
Association of Physics Teachers held their meeting at
SLAC this May, and an invitation to the workshop
was first extended with the announcement of the
meeting. The response was overwhelming; twice as
many teachers applied as could be accepted.

Andrea Ertzberger and Richard Taylor, who were
instrumental in orchestrating the various sessions of
the workshop, have both worked at SLAC in the past
[see article on p. 3]. Drawing on their experiences here
and in the classroom, they showed special sensitivitiy
to the needs and questions of the teachers when con-
fronted with a research facility
such as SLAC. In addition, ex-
perimentalists Bill Ash and
Roger Erikson gave presenta-
tions and helped guide tours.
Max Dresden and Bebo White
gave lectures and participated
in the classroom-oriented after-
noon sessions.

The response of the teachers
to a week at SLAC was tremen-
dously positive and enthusi-
astic. The main reason most of them gave for
participation in the workshop was that they were very
interested in particle physics, but that they weren't
knowledgeable enough to present this kind of material
in the classroom. John Young, a teacher from Chico
State, said that he wanted to "improve teaching skills
in the field of elementary particles, especially for those
students who have had little or no physics prepara-
tion." Young felt that the workshop was enlightening
and gave him answers to many of his questions. To-
wards the end of the workshop Ray Jones, from San
Jose High School, affirmed that he felt infinitely more
comfortable with particle physics than he had on the
first day. Having started out as a biology teacher, he
now feels that he has enough background to introduce
his students to the physics being investigated at SLAC.

Being able to see and hear experts in the field talk
about elementary particles was particularly helpful.

(cont'd.on p. 2)
Ray Jones was impressed with the lucidity with which physicists presented their topics. He felt that all of the experts avoided unnecessary jargon, communicated well, and that “there was not one of them that he couldn’t understand.” This immediate contact with the physicists and facilities of SLAC made the work being done here seem much more real according to Ray. While he had read about Z particles, actually seeing the equipment at work “made these things seem like real phenomena for the first time.”

Lawrence Jordan, from The College of Marin, also welcomed being brought up to date on particle physics and finding out what SLAC looks and feels like. He was excited about being introduced to facts and concepts that are on the cutting edge of science. He said that “you see things [here] that you won’t see in the textbooks until several years from now.” Paul Trudelle, a teacher from Woodside Priory School, also viewed the workshop as an excellent opportunity to get first-hand information on particle physics that is otherwise difficult to acquire. He pointed out that “the textbooks go over what was known and discovered in the ’30s, ’40s and ’50s, but our students will be entering the world of the 2000s.”

When most of these teachers were studying physics the standard model did not exist. The workshop gave them a chance to acquaint themselves with it. The standard model is now widely accepted and seen as fundamental to modern physics. As Paul Robinson of Fresno pointed out, though, he has been busy teaching for the last twenty years and has not been able to keep current. He especially appreciated learning how much has been discovered recently, and how valid the standard model is.

In addition to keeping the teachers up to date on high energy physics, the workshop has also provided them with contacts to whom they can refer future questions. Lawrence Jordan commented that it is tremendously helpful to know that Helen Quinn is available to answer questions which may come up later.

All of the participants agreed that the workshop was an excellent learning and enrichment experience. They would definitely encourage more of these workshops in the future and want to participate in them.

— Annette Cords

T-Shirt Design Deadline

JUST A REMINDER that the deadline for submitting entries for the 20th Annual SLAC Run T-Shirt is September 15. Please send your entries to Eileen Derr at MS 25.

The Interactions of Mr. Z

— Tom Nakashima

Look up in the sky.
It’s a bird,
it’s a plane,
Mr. Z, you were created by
the collision of subatomic
particles. You have extra-
sensory neutron eyes and a
proton nose, not to mention
that fancy electron bow-tie!
Any comments Mr. Z?
Yes. Any Tigers here yet?

Summer Science Workshop Participants
(in alphabetical order)

John Beaulieu, Davis
Doug Benenson, Santa Rosa
Earl Boynton, Sacramento
Rob Chioda, Oakland
Robert D. Collier,
Carson City, NV
Steven Eiger, San Francisco
Andria Erzberger, Palo Alto
Art Fortgang, Moss Beach
Ron Geyer, Sparks, NV
George Goth, Berkeley
Jim Houston, Oakland
Raymond Jones, San Jose
Lawrence Jordan, Kentfield
Seiji Kawamura, Fremont
Katherine Lawrence, Palo Alto
John Mitchell, San Jose
Allen Roberson, Oakland
Paul Robinson, Fresno
Sally Seebode, Belmont
Karen Street, Berkeley
Richard Taylor, Texas
Paul J. Trudelle, Portola Valley
J. David Wall, San Francisco
Greg Woytek, Fremont
John Young, Chico

SLAC Welcomes New Employees and Guests

Rodney Blankenship, ES&H;
Michelle Carroll, Stores; Billy
Dick, ES&H; Peter Eng, Facilities;
Michael Foss, SLD; Wendy Frye,
ES&H; Gail Gudahl, Purchasing;
Matjaz Kaluza, Theory; Maureen
McNear, ES&H; Gerhard Mueller,
Group B; Thomas Murphy, Purchasing;
John Rogers, Mechanical
Engineering; Scott Soden, ES&H;
Eric Soderstrom, Group C; Kirk
Stoddard, ES&H; Iris Walker,
ADP; John Windberg, ES&H.
How I Spent My Summer Vacation

INSTEAD OF VACATIONING THIS SUMMER, three Oakland School District teachers worked at SLAC. Rob Chioda is a junior high physical science teacher, and Jim Houstan and Allen Roberson are high school physics teachers. Their employment here is the result of Helen Quinn's suggestion that SLAC offer summer jobs to Oakland teachers. She felt that their experience here would provide them with a better understanding of the scientific process and ultimately enrich their teaching. SLAC's summer program is designed as a form of continuing education for physics teachers and is one of several programs being held this summer. At the suggestion of the Department of Energy (DOE), SLAC, Sandia, LBL, and LLNL became involved in science education regionally and decided to develop a project for the Bay Area. As the laboratories had a contact with the Oakland School District already, they approached the Oakland School Board and designed several training programs, one of which was at SLAC.

While no credit for teaching units is received for this work, spending the summer at a research institute definitely pays off. Having participated on the cutting edge of modern physics gives a far greater sense of credibility and reality to the science they pass on to their students. Rob said that having been here and being able to share what he saw and did inevitably brings his students closer to this kind of environment. He plans to take back slides and photos and believes that his experience at SLAC will help make modern physics much more tangible to his students. Rob is working on a proportional counter and testing how different wire sizes and gas mixtures respond to various charged particles.

Allen feels that it is important to be a good resource person for his students, and although particle physics only appears in the last chapter of the textbook he uses, his students often have questions about particles that Allen wants to be able to answer. His job this summer working on a testing system for the laser which is a part of the production for the polarized target at SLAC, has allowed him to expand his knowledge of particles and their interaction.

Jim, who is working on a simulation computer program for the new electron gun, has found his summer here invigorating and especially appreciates the freedom and responsibility his job offers. He finds it creates a refreshing counterpoint to the stress of teaching. He also appreciates being able to sink his teeth into a professional project and get more deeply involved with the process of science, which he has no time for during the school year.

The summer at SLAC seems to be working out well for these teachers. As Allen Roberson puts it, "I consider the experience this summer to be priceless."

—Annette Cords

Benefit Office News

MAXICARE, ONE OF THE OLDEST Health Maintenance Organizations in California, is committed to high quality health care and service. Maxicare is an economical and convenient way to provide for your family's health care needs.

Maxicare currently contracts with over 600 primary care physicians in 300 locations throughout the Bay Area, with more than 44 community hospitals to serve you. Maxicare emphasizes preventive care and comprehensive treatment for injury or illness. Care is provided without claim forms or deductibles.

Maxicare representatives will be available from 11 am to 1:30 pm in the Breezeway each Tuesday during September. Come get your blood pressure checked and pick up free booklets on low-fat cookery, stress management, living with diabetes, understanding hypertension and smoking cessation.

—Betty Strickland

Dealing With Power and Anger

THE WORKSKILLS PROGRAM has now been successfully launched at SLAC, with the first three brochures distributed site-wide. In September there will be two lectures on the topics of "Understanding Power" and "Handling Anger." The lecturers have been carefully chosen, and are experts on their topics. The series will be held at noon and will be either in the conference room of the computer building or in the auditorium. Due to the speakers' schedules, some of the lectures are on Wednesday and some are on Thursday. They will be videotaped; one copy will be kept in the library, the other copy will be in Eileen Derr's office at Medical.

The WorkSkills Program will continue through mid-November, with five more brochures and reinforcement lectures scheduled. The program has been tested, and is indeed a benefit to improvement of worksite relationships.

—Eileen Derr

Omission

IN THE JUNE, 1991 issue of TIP, we failed to mention that the article, "New Approach to Science Education," was derived from a presentation given to the Women's Interchange at SLAC (WIS) at the March 26 meeting.
Secondary Containment of Hazardous Materials and Wastes

Secondary containment using basins with sliding covers (Cooling Tower, s. side).

IF YOU HAVE EVER USED A SAUCER under your cup of tea or coffee, I am sure you have experienced occasions where the saucer has saved you from an untimely trip to the dry cleaners or the laundry. A saucer is not a very sophisticated spill protection tool, but it is a practical example of an everyday household item used for secondary containment of spills.

Secondary containment, a common practice in the storage of hazardous materials and wastes, is an important measure used to prevent leaks and spills of hazardous substances to the environment and has been utilized in various ways and on various scales at SLAC. Some examples of secondary containment include overpack drums, specially manufactured pallets, and basins with sliding covers that are designed to collect the contents of leaking containers with capacities of 55 gallons or less. Other examples of secondary containment include special storage sheds, yellow cabinets used for storage of flammable materials, and bermed areas constructed from asphalt or concrete.

Secondary containment can also be used on a smaller scale. While it is not required by regulations, a good practice is to store small containers of compatible materials in a tray. For example, 1-pint bottles of a solvent, such as acetone, can be stored at the end of a work day in a cabinet with secondary containment. Using a compatible tray to collect and hold these bottles throughout the workday can prevent spillage from leaky or broken containers in the workplace and ultimately into the environment.

If spillage is found during inspection of the storage area or by routine observation, the spill should be reported to the hazardous materials coordinator or supervisor responsible for the area.

Two obvious benefits to secondary containment are: reducing the urgency of treating a spill and reporting it to a regulating agency, and preventing releases and costly cleanups of hazardous substances to the ground or to the water (creek, sewer, drain, etc.).

If you are uncertain about the type of equipment needed for secondary containment, or if you have other concerns related to secondary containment, call Michael Hug, Environmental Protection & Waste Management (ext. 4042). Let’s continue to make secondary containment a part of SLAC’s household practice.

—Rich Cellamare

Some important points to keep in mind when considering secondary containment of hazardous materials and wastes are:

- Store within the secondary containment only those materials compatible with each other; use separate containments for incompatible materials (a chart on material compatibility is available in Stores).
- Secondary containment must be constructed with materials compatible with the materials to be stored.
- If the secondary containment is located outdoors, provide the containment system with a cover to keep water from entering the containment area.
- Inspect and record observations on the condition of the containers and the secondary containment on a weekly basis. Check for any leakage found in the containment and ensure that all containers are closed and in good condition.
"Poor Little Buttercup, 'Bye..."

RITA TAYLOR ARRIVED in the SLAC library in August 1964, fresh from setting up a model preprint library for the Linear Accelerator at Orsay in France. She proceeded to apply her experience to the same task at SLAC, where as preprint librarian she has helped build a world-class collection. Rita also edits the "Anti-Preprint" section of Preprints in Particles and Fields, and tracks elusive high-energy physics conferences to their secret lairs for announcement in "PPF Conference Previews." She has moved with grace from the world of card files to the world of on-line files, all the while giving professional talks and advice about preprint handling to many other groups.

Light opera buffs, however, know Rita best as the endlessly resourceful producer for the Stanford Gilbert and Sullivan light opera company, The Savoyards.

During her tenure at the SLAC Library, Rita stacked up the following achievements:

- Acquired > 100,000 preprints
- Discovered > 70,000 anti-preprints
- Tracked > 4,000 conferences
- Proofed untold issues of PPF
- Knew correct spelling for > 10,000 authors
- Persuaded most of them to send their preprints
- Edited and produced PPF "Anti-Preprint" cumulations
- Answered and wrote countless letters and e-mail messages
- Managed SLAC Pub distribution list; kept it within bounds
- Advised new preprint librarians in the U.S. and overseas
- Administered last-chance lectures to errant borrowers
- Explained physicist psychology to the library staff
- Gave talks to APS/DPF and DOE librarians
- Complained to and advised befuddled proceedings editors about style and organization
- Campaigned tirelessly against unnumbered preprints and conference organizers who keep changing their dates
- Did good deeds for her colleagues and many others
- Brought us chocolates and gossip from Europe and beyond
- Wrote opera and light opera reviews for publication
- Shared the products of her gourmet cooking
- Gave fabulous parties
- Told us a lot of funny stories and kept us on our toes
- Threatened to retire and did.

—Louise Addis

Safe Extinguishers

THE SAFETY COMMITTEE meets once a month. On the way to the meeting, each member inspects certain fire extinguisher units. The safety team member signs and dates the tag on the reverse to record the monthly inspection. This is a simple, low-cost way to accomplish these inspections, and we can credit Alan Wilmunder for the idea. Our Safety Committee also monitors emergency phone labels and serves as an evacuation response team. The role the committee plays helps reduce chores for the line supervisors.

—Judy Nowag

RITA TAYLOR ARRIVED in the SLAC library in August 1964, fresh from setting up a model preprint library for the Linear Accelerator at Orsay in France. She proceeded to apply her experience to the same task at SLAC, where as preprint librarian she has helped build a world-class collection. Rita also edits the "Anti-Preprint" section of Preprints in Particles and Fields, and tracks elusive high-energy physics conferences to their secret lairs for announcement in "PPF Conference Previews." She has moved with grace from the world of card files to the world of on-line files, all the while giving professional talks and advice about preprint handling to many other groups.

Light opera buffs, however, know Rita best as the endlessly resourceful producer for the Stanford Gilbert and Sullivan light opera company, The Savoyards.

During her tenure at the SLAC Library, Rita stacked up the following achievements:

- Acquired > 100,000 preprints
- Discovered > 70,000 anti-preprints
- Tracked > 4,000 conferences
- Proofed untold issues of PPF
- Knew correct spelling for > 10,000 authors
- Persuaded most of them to send their preprints
- Edited and produced PPF "Anti-Preprint" cumulations
- Answered and wrote countless letters and e-mail messages
- Managed SLAC Pub distribution list; kept it within bounds
- Advised new preprint librarians in the U.S. and overseas
- Administered last-chance lectures to errant borrowers
- Explained physicist psychology to the library staff
- Gave talks to APS/DPF and DOE librarians
- Complained to and advised befuddled proceedings editors about style and organization
- Campaigned tirelessly against unnumbered preprints and conference organizers who keep changing their dates
- Did good deeds for her colleagues and many others
- Brought us chocolates and gossip from Europe and beyond
- Wrote opera and light opera reviews for publication
- Shared the products of her gourmet cooking
- Gave fabulous parties
- Told us a lot of funny stories and kept us on our toes
- Threatened to retire and did.

—Louise Addis

All meetings are held in the Orange Room, unless another location is listed. Please notify the Public Affairs Office of any additions or changes by calling ext. 2204 or sending e-mail to NINA@SLACVM.

September 9–20
DOE ES&H Training
(Auditorium)

September 10, Noon–1
Women’s Interchange at SLAC
Business Meeting
(Blue Room)

September 18, 9–4
SUBB Mobile
Blood Drive
(Auditorium Lobby)

September 24, Noon–1
Women’s Interchange at SLAC
Lee Lyons on “Human Resources at SLAC”
(Auditorium)

September 27–30,
Stanford Centennial Tours of SLAC
(AUD/Bus Rte)

October, (TBA)
Tiger Team Visit
Persian Gulf Veteran Returns

David Reynolds, reclines next to a camel skull in Al Jawf. The bottom sign reads, "HELL (Saudi Arabia) you are here."

SADDAM HUSSEIN INVADED Kuwait just as David Reynolds started his two weeks of active duty as a reservist last year. David, a Navy reservist, is a precision surveyor with the alignment group here at SLAC, and our sole representative there. In August, 1990 his detachment was assigned to the USS Nimitz, to fulfill its required yearly two weeks of active duty. When Kuwait was invaded, David agreed to extend his orders for 3 months. After being stationed in Point Magu, CA, David was transferred to Saudi Arabia until the end of March, 1991. David is an aviation ordinance man with the Firehawks, a special warfare helicopter squadron. He is in charge of maintaining and loading the weapon systems, in particular the M60 machine guns for the doors of the helicopter and the chaff system which contains a radar disrupting foil which the helicopter can eject when locked on by enemy missiles. As the only land-based Navy helicopter squadron, the Firehawks were transferred to Tabuk, at the Northern end of the Red Sea, close to the Jordanian border. A day before the bombing started, David's unit was moved further inland to Al Jawf, in line with the western flank of the American and Allied troops.

Stationed about 100 miles from the Iraqi border during the war, the mission of David's squadron was strike rescue. Their task was to rescue pilots who had been shot down in combat. Usually when a pilot is shot down, he will radio distress signals at regular intervals. Once located, the search and rescue team will try to determine whether he is really one of their own or the enemy using the distress signal to lure them in. There are various ways to determine the authenticity of a caller from behind enemy lines; the most common is called isoprep. Isoprep entails asking the pilot very specific questions, such as his mother's maiden name, that only he can answer. The combat search and rescue assignments the Firehawks received during the war proved to be false alarms, as the isoprep revealed that it was not a pilot signalling them but the enemy trying to fool them. David also pointed out that the American pilots were very successful in returning from their missions. The American troops had anticipated losing ten percent of their planes on the first strike, which would have kept squadrons such as David's busy. Luckily only one American plane was shot down during the first bombings, and only about fifteen in the entire conflict.

When he wasn't maintaining the weapon systems of his squadron, David spent much of his time filling sand bags and building bunkers for protection from possible Iraqi bomb raids. David said he lived in a small world there, and although the war was constantly on the news here, he didn't get much information in Saudi Arabia because media coverage at the front was less available. Looking back, though, he feels that the news broadcast here on the Gulf War accurately depicted what he experienced. —Annette Cords

A "Masterly" Feat

CONGRATULATIONS to Jim Harm of Plant Engineering, who has just received his Masters Degree in Computer Science from CSU Hayward.

Jim joined SLAC in 1977, working for Joe Cobb in the Magnetic Measurements Group (Accelerator Physics Department). He received his AA with honors from De Anza College in 1978, then went on to get a BS with highest honors in Mathematics from CSU Hayward in 1981. Jim took a break until 1988, at which time he resumed his education.

Work and school has left little time for leisure, but Jim has had a lot of encouragement and support from his wife, Doris, daughter Erika Grace (age 5) and son Jeffrey James (age 4). Erika and Jeffrey don't seem to be too impressed with another degree for Dad; they thought their trip to Disneyland was a lot more fun than watching Daddy in cap and gown.

—Faye Boyle
ON AUGUST 8 Sharon Gutman graduated from the SLAC apprenticeship program, after four years of training which combined correspondence courses, classes at San Jose Vocational Regional College, and a forty-hour work week at SLAC. Now certified by the State of California as an instrumentation mechanic, Sharon will continue her career with Plant Maintenance here at SLAC.

In 1987, while working in the Stanford food service as an assistant cook, Sharon decided on a career change from her previous service-oriented positions. With some college background in civil engineering, and having helped her father with construction work, she knew she wanted a job in a mechanical field.

When the apprenticeship position in Plant Maintenance at SLAC opened up, Sharon jumped at the opportunity. It presented her with the opportunity to switch to a field she would enjoy, provided she job training, and a guaranteed full-time job when completed.

Designed to increase diversity in the trades by specifically recruiting women and minorities, the state-certified program has provided opportunities in a number of trades and crafts. Two to ten apprentices have been in training at any one time, and there have been 20 graduates since it began in 1975.

REXX, a procedural language, was designed for personal as well as command and macro programming. Written by Mike Cowlishaw and developed at IBM, REXX was introduced at SLAC in the early '80s and gained almost instantaneous popularity. REXX distinguished itself by its easy readability and usability, and surpassed any of its competitors as a macro language. Cathie Dager, who works as a Scientific Programmer at SLAC, was aware of REXX’s success from the start. She saw that REXX was not only heavily used at SLAC but with other implementors and developers as well. Versions of REXX had been developed for UNIX, VAX, OS/2, PC-DOS, Tandem and Amiga.

While there were many developers and users of REXX, few of them were actually in communication with each other, as the computer language had caught on quietly without a lot of fanfare. Cathie felt that the individuals working with REXX could benefit from getting to know each other, and decided to organize a forum for the exchange of ideas and information. A one-day symposium seemed to be the appropriate format.

The first REXX symposium, held at SLAC in June 1990, was instrumental in defining the REXX community and establishing an ongoing dialogue among its various members. It also helped push REXX into the limelight of the computer world. After the first symposium, REXX received front-page coverage in PC Week. Subsequently IBM decided to include REXX in its new operating system for PCs. Also the American National Standards Institute (ANSI) formed a group to standardize REXX.

The future of REXX was looking bright. The REXX Symposium had obviously proven itself and Ms. Dager was already working on organizing a second one. Held this May at Asilomar, the program had grown enough for it to last two days. The diverse community of users was better represented than during the first symposium, and the participants were also more international, coming from a greater number of states and countries.

The variety of papers presented at the past symposium, as well as the enthusiasm and interest of the participants, speak for themselves. The symposium has become a crucial means of communication among REXX users and developers. With the next symposium to be held in Annapolis in 1992, the REXX Symposium will continue to be a focal point of interest and activity.
Godshall Finishes Ninth in Grueling Race Across America

SLAC’s LOREN GODSHALL, one of nine rookies in a field of 26 men and four women who started last month’s grueling Race Across America (RAAM), pedaled to a ninth place finish among the 17 finishers who crossed the finish line of the 2,930 mile bicycle ultra-marathon.

This year’s event marked the tenth running of the RAAM, and the demanding route stretching from Irvine, CA, to Savannah, GA, attracted some of the premier distance bicyclists from throughout the world. Godshall, still fatigued yet optimistic upon his return to work, was justifiably proud to have finished, particularly in light of the competition and the obstacles he encountered along the way.

Despite technical and physical problems, Loren led the race through Flagstaff and again through Durango, and was in the top four through 2000 miles. Problems such as saddle sores, liquid diet failure, and sleep deprivation took their toll, but the most debilitating was severe exhaustion of his neck muscles. His performance the last four days was greatly impaired as he was forced to pedal with one hand on the handlebars and the other under his chin to support his head.

Encouraged by his fine finish, Loren is already entertaining thoughts of competing again next year. “I feel that I could do much better knowing what I know now,” Godshall stated.

Loren was particularly grateful to the SLAC personnel who donated $1,150 toward his expenses. He also expressed special thanks to Leo Giannini for the use of his van, to Steve Louie for his invaluable support as a crew member, and to Tim Montagne for his encouragement and coaching. Special thanks also to Herb Horejsi and Ossie Millican for the welcome back picnic celebration.

—Lewis Sign

Dyer Beats 3-Time Champ, Places Second in Nationals

SEAN DYER, of Experimental Facilities, placed second in the Flying Junior National Championship sailboat race in July, just missing first place to come in ahead of three-time world champion Steve Klotz. First place was won by US Naval Academy sailor Gavin O’Hare. Sean’s boat was crewed by his daughter Cynthia Ann.

The championship race is actually composed of six races, two a day for three days, each scored using the Olympic scoring system and the final score accumulated from the five best races. Scores for this race were: O’Hare 19.7 points, Dyer 20.1, and Klotz 21.

The US National Championship races require one-design boats. Each boat has a measurement certificate, a builder’s plaque, and is built to meet certain regulations. The boats, which carry a tremendous amount of sail, take skill to sail. Sailing one in a championship race is quite exciting, in some cases downright scary.

According to Sean, speed is relative in boat racing; it’s a game of tactics, with tide, practice, and stamina playing major roles. His two daughters often crew for him. In fact, when he switched places with his daughter Theresa Colleen once, to give her a chance to be skipper, she won the Northern California Small Boat Racing Association championship.

—Annette Cords