NEWSLINE

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Wayne Shotts named deputy director

Wayne Shotts, a longtime Laboratory physicist and a past winner of the E.O. Lawrence Award for national security, has been selected as the new deputy director for Operations at the Laboratory.

The appointment was made by Director Michael Anastasio and confirmed by the University of California Regents and by the National Nuclear Security Administration. Shotts replaces Glenn Mara, who retired from the position in October.

In making the appointment, Anastasio said that Shotts is ideally suited for the role of deputy director.

"Wayne brings more than 30 years of outstanding work in our programs — both at Livermore and at the Nevada Test Site — to this operations position," he said. "He is an exceptional scientist and leader for which he has earned many accolades during his career here. His recent effort as head of our Homeland Security Organization allowed the Lab to make significant contributions to the nation's war on terrorism. I have full confidence that he will bring the same commitment and leadership qualities to this position. I look forward to working with him."

Wayne Shotts

Interview with Wayne Shotts, see page 7

Shotts joined the Laboratory in 1974 as a physicist. He has served as a group and program leader in the Lab's nuclear design department and division leader for nuclear chemistry and for prompt diagnostics in the Lab's nuclear test department. In 1988, he became principal deputy associate director for military applications. In 1992, he joined the Defense and Nuclear Technologies Directorate as principal deputy. In 1995, Shotts was tapped to be the associate director for Nonproliferation, Arms Control and International Security (NAI) - overseeing the Lab's programs in proliferation prevention, proliferation detection and defense systems, counterterrorism and incident response, and international assessments.

Following the tragedy of September 11, the Laboratory formed a new Homeland Security Organization. Shotts assumed the leadership of this new organization in December 2002, while still maintaining

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Researchers take measure of Tibetan tectonic fault linked to recent tsunami

By Anne M. Stark
NEWSLINE STAFF WRITER

Laboratory researchers have determined the Karakorum fault in Tibet, a feature formed by the same tectonic "collision" that caused the recent tsunami, has slipped 10 millimeters per year during the last 140,000 years.

Earlier research by outside scientists using satellite radar interferometry (InSAR) conducted over a decadal time scale indicated that the Karakorum fault and the Karakax segment of the Altyn Tagh fault in western Tibet are essentially inactive.

But Laboratory scientists Rick Ryerson, Marie-Luce Chevalier (a visiting student from the Institut de Physique du Globe de Paris), and Bob Finkel, along with colleagues in France and China, studied Karakorum movement along a single strand of the fault system over a millennial time scale and found the slip to be 10 times larger than that of the slip rate across the entire fault from the InSAR data.

Karakorum is the main right-lateral motion fault north of the Himalayas and is in the same area as the earthquakes that caused the tsunami in Asia. Both areas are located on the northern edge of the Indian plate where northward motion has caused earthquakes and the growth of the Tibetan plateau.

See **FAULT,** *page 5*

UC's board of regents votes to bid on contract to manage Lawrence Berkeley lab

The University of California Board of Regents voted Thursday to pursue continued management and operations of Lawrence Berkeley National Laboratory by submitting a competitive proposal to the Department of Energy.

Acting on the recommendation of UC President Robert Dynes, the Regents voted to grant Dynes the authority to submit a proposal by the department's Feb. 9 deadline.

"Lawrence Berkeley National Laboratory and its employees are a critical part of the University of California system and provide a tremendously valuable scientific contribution to our nation," Dynes said. "Our strong bid will continue our proud tradition of public service and scientific discovery while ensuring that the best management practices are in place at the laboratory."

Under the university's LBNL proposal, UC will be the prime contractor and will propose that the laboratory staff remain as UC employees and as part of the UC

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NIF's Bibeau receives fusion award

Bob Hirschfeld
NEWSLINE STAFF WRITER

Camille Bibeau has come a long way since she decided to give up the college scholarship which would have led to a career as a concert pianist.

Instead, she chose to become a physicist, and now heads the Mercury Laser project – LLNL's next-generation laser in the quest toward fusion energy.

Camille Bibeau

Last month, she received the prestigious national 2004 "Excellence in Fusion Engineering Award" at the Fusion Power Associates (FPA) annual meeting in Gaithersburg, Md. The award recognizes Bibeau's "many technical contributions to the design, construction and operation of laser systems" and "her outstanding communications skills in providing clear and understandable presentations on highly complex topics to a variety of audiences."

"When the project was started back in 1997, all the key technologies were either not developed or in their infancy. For example, we needed more than 8,000 packaged diodes that could last for 100 million shots, large specially formulated

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LAB COMMUNITY NEWS

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Friday 21

This is the last day employees who use the Eudora e-mail application will be able to access the **AIS PH Ledger Account Database.** After today, users may access ledger account detail information via the MyLLNL Portal or via the Enterprise Data Depot (EDD). Detailed instructions for both methods of access, with step-by-step screenshots, can be found on the Web at https://www-ais.llnl.gov/llnl_only /docs/dw/PH_Account_Database.html

For more information, send an e-mail to "EDD Support" at eddsupport@llnl.gov or contact Ray Lutton, lutton2@llnl.gov.

Tuesday 25

The Laboratory's Health Services Department (HSD) still has a limited number of flu vaccine doses available. HSD is holding another **flu clinic** today from 1-4 p.m. in the Bldg. 663 library. Shots will be administered at no cost to employees 50 years of age and older — bring a driver's license or other proof of age. Shots will be given on a first-come, first-served basis, until the supply is depleted. The eligibility criteria for next week's clinic meet the Centers for Disease Control recommendation that individuals over the age of 50 receive a flu shot.

Wednesday 26

Claire Daughtry, UC Davis instructional TV manager, will be at the Laboratory today at noon in Bldg. 571, room 1335/1301 to discuss the **UC Davis Instructional Television Program** and the graduate engineering and computer science programs available onsite via television. For additional information, call Kathy in EODD, 2-9335.

Up & Coming

The Employment and Organization Development Division is continuing to process requests for funding of **degree programs** on a quarterly basis. Review and approvals are done quarterly, rather than monthly, by the Student Policy Committee. FY05 deadlines for submission of graduate and undergraduate academic plans are as follows: Feb.1, May 1, Aug. 1, and Nov. 1. All requests should be sent to the Education Office, L-728. Requesters will be notified following the Student Policy Committee meeting scheduled for the first Thursday of the following month. For additional information, contact the Education Office, 4-5479.

• • •

A Lab team is looking for people interested in participating in the Kaiser Permanente **San Francisco Half Marathon and 5K Run/Walk** on Feb. 6. Prices vary according to race selection and registration date. For more information, contact Melissa Douthit at 2-9834 or douthit2@llnl.gov.

Civil rights attorney to deliver keynote

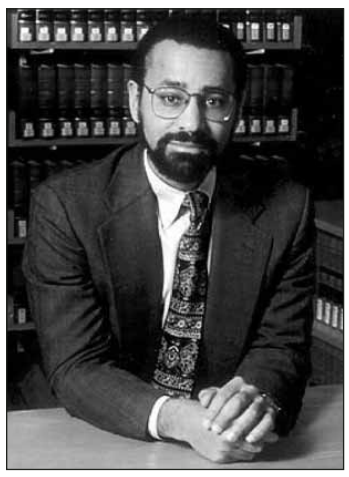
Employees are invited to attend in the annual Martin Luther King Jr. celebration, on Monday, Jan. 24, from 1 to 2:30 p.m. in the Bldg. 123 auditorium. Christopher Edley Jr., the new dean of Boalt Hall Law School at UC Berkeley and a national civil rights leader, will be this year's keynote speaker.

Edley is the first African American dean to lead a top-ranked U.S. law school and has a wide range of high-level policy expertise.

Prior to joining Boalt Hall as dean in 2004, Edley taught for 23 years at Harvard Law School where he was a co-founder of the renowned Civil Rights Project, a multidisciplinary research and policy think tank that has conducted research and policy briefings for congressional staff, journalists and civil rights organizations.

Edley also served in both the Carter and Clinton administrations and is currently a member of the U.S. Commission on Civil Rights. In addition, he serves on several panels of the National Research Council, the research arm of the National Academy of Sciences.

Books written by Edley include the treatise "Administrative Law: Rethinking Judicial Control of Bureaucracy" (Yale University Press, 1990). His book "Not All Black & White: Affirmative Action, Race & American Values" (Hill and Wang, 1996), grew out of his work as special counsel to Clinton.



Christopher Edley Jr.

Edley was born in Boston and raised in Philadelphia and New Rochelle, NY. In 1973, he received his bachelor's degree in mathematics and economics from Swarthmore College. In 1978, he received a master's degree in public policy from Harvard's Kennedy School of Government and a law degree from Harvard Law School, where he was an editor of the Harvard Law Review.

Following Edley's talk, there will be musical tributes presented by the Stars for Christ - St. Mathews Baptist Church Children's Choir and Isom Harrison, library division leader at TID. Recipients of the Laboratory's Martin Luther King Jr. scholarship will read their essays on King.

This program is co-sponsored by the Director's Office, the Administration and Human Resources Directorate and the Worklife Programs Office. For more information, call Susane Head at 3-6688.

RETIREES' CORNER

As a friend and occasional volunteer of the Archives Department of the Hoover Institute, **Henri Fankhauser** (widow of Chuck Fankhauser), was asked to join a group going to Warsaw for a presentation called "The History of a Friendship" — about Herbert Hoover's lifelong interest and assistance to Poland. The exhibition items include photographs, documents and artifacts on his commitments to the survival of Poland following the two world wars, starting with his direction of the American Relief Administration which saved the lives of hundreds of thousands of Polish children.

He ensured that the food shipments reached throughout the country — as well as major fund-raising, and personal contributions. He also became a friend and political adviser to composer Ignacio Paderewski. His work is well remembered throughout Poland.

There were about 15 people in the group, staying at the Hotel Bristol in easy walking distance from the Old Town and the Royal Castle and numerous restaurants. On Wednesday, their group was able to preview the exhibition at leisure — the formal opening on Friday was very crowded — and among other things they visited the Jewish Historical Institute, a small castle with a vast collection of paintings, the changing of the guard, and a wreath lying at the Hoover Square. A monument of gratitude to America was destroyed during the war, but is due to be replaced. One evening they went to the Chopin Museum, rebuilt as nearly as possible from sketches during Chopin's occupancy, followed by a concert of Paderewski compositions. To Henri, the most moving visit was to the Warsaw Uprising Monument and Museum — she never realized the extent of the Polish peoples' struggles after being attacked first by the Nazis then the Russians, and some whole cities destroyed.

It was a most worthwhile trip (even at the price of missing a National Review cruise) and besides being enjoyable and educational, she has even more appreciation for the peace and prosperity that we Americans have always enjoyed. (E-mail: Henrimae@aol.com)

Janice Moura (Computation 1997) and her partner **Kelly Tague** spent 25 days this summer on a cruise aboard the 120-passenger Clipper Adventurer. The expedition departed from Dublin, Ireland, explored Northern Ireland, the Scottish Isles, Iceland, and Greenland.

As a special treat the captain made a stop at Grimsey Island. After a short walk, the group crossed the Arctic Circle. Intrepid golfers, the girls had a golf ball and tee; the expedition team crafted a golf club so they could drive a golf ball across the Arctic Circle (66 degrees 33 feet). Birds, whales, seals, sea caves, Celtic, Norse and Danish ruins, standing stones, trekking on the second and third largest ice caps, Zodiac adventures, remote fishing villages, golfing at Stornoway and Kirkwall in Scotland as well as Hofn (in a driving rain) and Heimay in Iceland; carving a pathway through the icebergs at the entrance of Prince Christian Sound, Greenland. Great fun. Great people. Great food. E-mail: jan000@comcast.net.

Please send any input to Jane or Gus Olson. E-Mail: AugustO@aol.com or JaneRubert@ aol.com. Phone: (925) 443-4349, snail mail address: 493 Joyce St., Livermore, CA 94550.

Newsline

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AROUND THE LAB

Laboratory women's association awards 12 scholarships

By Linda Lucchetti
NEWSLINE STAFF WRITER

Last week, the Lab Women's Association continued a tradition begun 21 years ago — it presented its annual scholarship awards to employees who are pursuing their education while continuing their careers.

Cherry Murray, deputy director for Science and Technology, presented awards to 12 employees. Murray, who joined the Laboratory in December, said she was not only impressed to learn about the Women's Association, but also of the scholarship program.

"It is important to continue your education," Murray said, sharing a few of her own experiences about juggling a career and family, and encouraging those employees who are furthering their education to adopt the mantra, "this is possible; this is what I'm going to do and, I'm not going to get distracted."

During the ceremony, association vice president Yahel de la Cruz, a software engineer in Lab Services/Administration Information Systems and herself a past award recipient, gave an inspirational message. Last year, de la Cruz, received her master's degree in information systems from the UC San Francisco (UCSF). She credits the Women's Association for helping her achieve that goal.

"When I first heard about the scholarships, the words 'free money' came to my mind," de la Cruz admitted with a smile.

But, after applying and going through the interview process, and later receiving the award, she realized the she was getting much more.

"The scholarship awards really brought me and the Women's Association together," de la Cruz said, citing support and friendship from members along with lots of encouragement to "hang in there." In addition, the association was there to help with career development, advice and planning.

This year's awards totaled $5,100, and were given to employees seeking associate's, bachelor's and master's degrees. Funds for the scholarships come from the association's membership dues, fund-raisers, and donations.

JACQUELINE MCBRIDE/NEWSLINE

Last week Deputy Director for Science & Technology Cherry Murray (front right), presented LLLWA scholarship awards to Carol Rivers (first row); Diane Hart, Gail Everson, Sherry Digness, Ladona Willis, Adrienne Ridolfi (second row); Jean Seymour, Mark Carter, Patti Kluck, Brenda Staley, Jessica Gowin and Cynthia Herrmann (third row).

The following are this year's LLLWA scholarship winners:

Winners of $600 scholarships are Diane Hart, a work-for-others specialist in the Budget Office who is working towards a master's degree in finance at Holy Names University and Cynthia Hermann, a senior technical publication practitioner in the Technical Information Department who is seeking a bachelor's degree in English from San Joaquin Delta College, transferring to Cal State Hayward.

Winners of $500 scholarships are Gail Everson, an industrial safety professional in Hazards Control, who is seeking a master's degree in occupational safety and health from East Carolina University; Brenda Staley, a safety document coordinator in Hazards Control, who is seeking a bachelor's degree in organizational behavior from the University of San Francisco; and, Ladona Willis, a senior mechanical technologist in the New Techologies Engineering Division of Mechanical Engineering, who is seeking an associate's and bachelor's degrees in mechanical engineering from Las Positas College.

Winners of $450 scholarships are Mark Carter, a service operations specialist in Procurement/Laboratory Services, who is transitioning to the University of San Francisco and seeking a degree in computer information systems and Jean Seymour, an associate administrator in Administrative Information System/Laboratory Services, who is pursuing an associate's degree in computer information system from Las Positas College.

Winners of the $400 scholarships are Sherry Digness, a senior network technician in the Electronics Engineering Technologies Division, who is pursuing a bachelor's degree in computer science from Las Positas College and Chico State University and Patti Kluck, a health and safety technologist from Hazards Control, who is pursuing a bachelor's degree in organizational behavior from the University of San Franciso.

Winner of a $300 scholarship award is Adrienne Ridolfi, an administrative specialist in Energy and Environment/Environmental Science, who is pursuing a certificate in graphic design from Las Positas College.

Winners of $200 scholarships are Jessica Gowin, an administrative specialist in the National Ignition Facility, who is seeking an associate's degree in business administration from Las Positas College and Carol Rivers, a systems and network technologist in Computation, who is seeking an associate's degree in liberal arts from Las Positas College.

Antibiotic resistance has become pressing public health problem

By Ronit Ben Abraham-Katz, MD
HEALTH SERVICES

Did you know that colds, flu and most sore throats and bronchitis are caused by viruses, and that antibiotics do not help fight viruses? In fact, taking antibiotics when you have a virus may do more harm than good. Taking antibiotics when they are not needed increases your risk of getting an infection later that resists antibiotic treatment. Antibiotic resistance has been called one of the world's most pressing public health problems. The following guidance from Health Services is for LLNL staff for the current flu and cold season.

If you have a cold or flu, antibiotics won't work for you. Antibiotics kill bacteria, not viruses. Taking antibiotics for viral infections will not cure the infections, keep other individuals from catching the illness or make you feel better.

Antibiotic resistance

Antibiotics, also known as antimicrobial drugs, are drugs that fight infections caused by bacteria. After their discovery in the 1940s, they transformed medical care and dramatically reduced illness and death from infectious diseases. However, over time the bacteria that antibiotics control have developed resistance to these drugs. Today, virtually all important bacterial infections in the United States and throughout the world are becoming resistant.

Antibiotics use promotes development of antibiotic-resistant bacteria. Antibiotic resistance occurs when bacteria change in some way that reduces or eliminates the effectiveness of drugs, chemicals or other agents designed to cure or prevent infections. The bacteria survive and continue to multiply, causing more harm. Widespread use of antibiotics promotes the spread of antibiotic resistance. Smart use of antibiotics is the key to controlling the spread of resistance. Only use antibiotics when they are likely to be beneficial.

What happens with drug resistance

Drug resistance happens when bacteria develop ways to survive the effects of medicines meant to kill or weaken them. Before prescribing antibiotics to HSD patients, the pros and cons of antibiotic use, and the potential of developing drug resistance if taken too often are explained. HSD clinicians make sure that patients understand how to take the medication and why they need it.

How can you prevent antibiotic-resistant infections?

• Talk with your health care provider about antibiotic resistance.

• Ask whether an antibiotic is likely to be beneficial for your illness.

• Ask what else you can do to feel better sooner.

• Do not take an antibiotic for a viral infection like a cold or the flu.

• Do not save some of your antibiotic for the next time you get sick.

• Take an antibiotic exactly as the doctor tells you — do not stop taking it unless instructed by your doctor.

• Do not take an antibiotic that is prescribed for someone else.

Drug resistance happens when bacteria develop ways to survive the effects of medicines meant to kill or weaken them. Before prescribing antibiotics to HSD patients, the pros and cons of antibiotic use and the potential of developing drug resistance are explained. HSD clinicians make sure that patients understand why they need to take the medication and how to take it.

News you can use

Deputy Energy Secretary Kyle McSlarrow resigns

Kyle McSlarrow, deputy secretary of Energy, resigned earlier this week.

"It is with regret that I announce the resignation of Deputy Secretary of Energy, McSlarrow," Secretary of Energy Spencer Abraham said. "Kyle has served with distinction since the first day of President Bush's first term in office. First, as my chief of staff, and then as deputy secretary since 2002, Kyle has been at my side for the last four years.

"As the department's chief operating officer, Kyle has led and implemented many of the successful reforms of the last four years. Perhaps his greatest accomplishment has been in overseeing the dramatic change in how this department is managed – most visibly seen in the department's rating by the Office of Management and Budget as the best managed cabinet agency in 2004 after having been rated as the worst in 2001.

"On a personal note, Kyle has worked closely with me to implement all of the major initiatives of this administration. He has done so with total dedication to the job, our president and our country. I am grateful for his friendship and for his service to our nation. Jane and I wish Kyle, and his wife Alison, the very best in their future endeavors."

McSlarrow said: "I have been honored to serve President Bush and Secretary Abraham. I am grateful to them for their confidence in me and grateful to all my colleagues at the Department of Energy and throughout the administration for making these past four years rewarding ones."

As the chief operating officer of the Department of Energy, McSlarrow oversaw an agency with more than 100,000 federal and contractor employees, 17 national labs, and a budget of $23 billion.

McSlarrow's resignation is effective in early February. Prior to his tenure at DOE, McSlarrow has had a long and distinguished career in Washington, including service with the late U.S. Sen. Paul Coverdell as chief of staff and as deputy chief of staff and chief counsel to both Senate Majority Leaders Bob Dole and Trent Lott. He is a Virginia native.

Technical Meeting Calendar

Friday 21

PHYSICS AND ADVANCED TECHNOLOGIES/N DIVISION
"Have We Seen the QGP at RHIC?" by Scott Pratts, Michigan State University. 10:30 a.m., Trailer 2128, room 1000. Property protection area. Foreign national temporary building access procedures apply. Contact: Ron Soltz, 3-2647, or Annette Cook, 2-7856.

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS SEMINAR
"Black Holes in Galaxy Mergers," by Lars Hernquist, Harvard University. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

Monday 24

CHEMISTRY & MATERIALS SCIENCE DIRECTORATE
"Using Solid-State 31P{19F} REDOR NMR to Measure Distances with a Trifluoromethyl Group in Nucleic Acids," by postdoc applicant Elizabeth A. Louie, University of Washington. 10 a.m., Bldg. 151, room 1209, Stevenson Room. Foreign nationals may attend if appropriate security plan is on file for Bldg. 151. Contact: Robert Maxwell, 3-4991, or Kathy Ricard, 3-8024.

LAWRENCE FELLOWSHIP CANDIDATE SEMINAR
"Controls and Consequences of Agricultural Change," by David Lobell, Stanford University. 10 a.m., Bldg. 219, room 163. Contact: Rich London, 3-2021, or Edie Rock, 4-4035.

PHYSICS AND ADVANCED TECHNOLOGIES/N DIVISION
"Production of Polarized Positron and Photon Beams using Crystalline and Amorphous Targets: Conventional Scheme," by Armen Apyan. 10:30 a.m., Trailer 2128, room 1000. Contact: Jeff Gronberg, 4-3602, or Annette Cook, 2-7856.

CHEMISTRY AND MATERIALS SCIENCE DIRECTORATE/CORRELATED MATTER RESEARCH, MATERIALS SCIENCE
"Why (1st order) Quantum Phase Transitions are Interesting," by Christian Pfleiderer, Physik Department, Technische Universitat, Munchen. 10:30 a.m., Bldg. 235, Gold Room, auditorium. Contact: Kathleen Moody, 3-5948, moody2@llnl.gov.

CHEMICAL BIOLOGY AND NUCLEAR SCIENCE/BIOSECURITY & NANOSCIENCES LABORATORY
"Assembly and Transport Properties of Chemically Synthesized Nanostructure," by Sung-Wook Chung. 2 p.m., Bldg.151, room 1209, Stevenson Room. Foreign nationals may attend if approved plan is on file, which includes Bldg. 151. Contact: James De Yoreo, 3-4240, or Katie Thomas, 2-7903.

Tuesday 25

RADIATION DETECTION CENTER
"Recent Advances in Neutron Multiplicity and Fast Neutron Counting," by Phil Kerr. 11 a.m., Bldg. 123, conference room A (uncleared area). Contact: Ron Wurtz, 3-8504, or Christie Shannon, 3-6683.

Friday 28

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS
"The Formation of the First Stars," by Christopher McKee, UC Berkeley. Noon, Bldg. 319, room 205. All attendees need to be badged. Contact: Wil van Breugel, 2-7195 or Lisa Lopez, 3-0250.

February 3

CHEMISTRY AND MATERIALS SCIENCE DIRECTORATE
"In-Vitro and In-Vivo Single Molecule Molecular Rulers," by Shimon Weiss, Department of Physiology at UCLA. 3:30 p.m., Bldg. 155, room 1101, auditorium. (Common use facility.) Foreign nationals may attend. Contact: Mike Fluss, 3-6665, or Kathleen Moody, 3-5948.

February 4

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS
"Spin Transition in Earth's Mantle," by Raymond Jean-Loz, UC Berkeley. Noon, Bldg 319, room 205. All attendees need to be badged. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

February 9

ENERGY AND ENVIRONMENT / ATMOSPHERIC SCIENCE DIVISION
"High-tech Renewable Energy for Climate Stabilization," by Marty Hoffert, New York University. 11 a.m., Bldg 170, room 1091. Property protection area. Foreign national temporary building access procedures apply. Contact: Sharon Mickels, 3-9279.

February 11

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS
"The Composition, Origin and Evolution of Dust in Circumstellar and Interstellar Environments," by A.G.G.M. Tielens. Noon, Bldg. 319, room 205. Property protection area. Foreign national temporary building access procedures apply. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.
Please submit your meetings via the new Technical Meeting Calendar form on the Web, located at https://www-r.llnl.gov/tmc For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

Chemistry's Marian navigates to regatta victory

By Anne M. Stark
NEWSLINE STAFF WRITER

When Jaime Marian accepted a job in the Materials Science and Technology Division at the Laboratory in October, he had one non-negotiable.

He had to take seven weeks off beginning in mid-November through early January because he had a very important date with "Arvik."

Arvik isn't a person or a pet. It's a 38-foot sailboat that Marian and his three crewmates spent 21 days at sea on in a race to win the Rubicon-Antigua Challenge, a trans-Atlantic adventure from the Canary Islands off the coast of Africa to Antigua in the Caribbean.

No fresh water showers, tropical heat, lack of sleep, being in the open ocean with the world at your hands, but at the same time being cooped up on a relatively small boat with the same three people for so long can take its toll on a person.

Jaime Marian of Chemistry and Materials Science at the helm of the Arvik after an exhausting night watch. Marian and his crew went on to win the Rubicon-Antigua Challenge, a trans-Atlantic race from the Canary Islands to Antigua.

But not for Marian. He said the trip was unforgettable.

"I think the biggest sensation is that you feel like you can go anywhere, like you're completely free," he said. "But at the same time, you're confined to this super small place. But the passage was our objective."

Growing up in the Canary Islands, sailing is a way of life, Marian said. From the time he was a small child, he was involved in water sports, whether it was sailing, swimming or surfing.

So sailing 3,300 nautical miles was a natural fit.

"I grew up with two of the guys and they are really hard core," he said. "We had been talking about doing it for two to three years and then 18 months ago, we committed ourselves. At that point, you can't back out."

As a Caltech postdoc at the time, Marian didn't think it would be a problem to go on the regatta as he would have completed his postdoctoral research by November. But in the meantime, he got a job offer from the Lab.

"I told them before I took the job that I had to go on this trip," he said.

The crew took two months worth of food and water just in case something happened to the boat that would leave them stranded in the middle of the Atlantic Ocean. They took turns cooking, cleaning up, sleeping and manually steering the boat. Though the boat had an auto pilot, Marian said the crew was unable to use it due to the strong swells and tropical squalls that would approach without much notice.

"When you get to the tropical latitudes, there are violent squalls with 40 mph winds and a lot of rain that lasts for 20 minutes at a time," he said.

Because of these storms, the crew wasn't always able to use the spinnaker — a large triangular sail set on a spar that swings out opposite the mainsail — nor did they want to lose it in the strong winds. If the spinnaker fell off the boat, they would have to use the motor, which would have added points to their overall finishing time.

Marian said lack of sleep was the most difficult part of the trip.

"Two people are on watch all the time because we would keep the sails up at night," he said. "That contributed to the stress because you are so sleep deprived."

He said every crew member only got about four hours of sleep a night and at that, they might only get one and a half hours of good sleep.

"By the end of the three weeks, we had bags under our eyes down to here," said Marian as he pointed to his nose. "By the end of the trip, the first thing you want to do is take a nap and a hot shower."

Though most people would assume the shortest and fastest route from the Canary Islands to Antigua is a straight line, that wasn't the case. The Arvik crew traveled 300 nautical miles more than any other crew to take advantage of the trade winds so they wouldn't have to use their motor. And because they were manually steering the boat at all times, they were able to travel faster.

The crew finished eighth out of 18 boats overall in time. However, because the winner of the regatta is calculated by the size of the boat and whether the crew used a motor, the Arvik crew won — having the smallest boat and never motoring.

"When we got to Antigua, we were on this high and had a real sense of accomplishment," Marian said.

As for his next sailing adventure: "I'd like to sail to Hawaii."

LBNL

Continued from page 1

system-wide pension and benefits program. Dynes informed the regents that the university's proposal for the use of Department of Energy fees, which come with the management contract, would maximize the benefit to scientific programs and continue the university's policy of allocating funds for administrative and operating needs while returning the excess fee funds to the laboratory for additional research by its scientists.

The proposal will highlight the strengths of UC and its ability to produce future scientific and technological achievements at the laboratory.

Due to the competitive nature of the bid process, the Regents did not publicly detail other aspects of its proposal.

The current contract to manage the laboratory is set to expire on Jan. 31, 2005. Since October 2002, UC has managed the laboratory under a series of contract extensions, including a one-year extension signed by the university on Jan. 30, 2004.

Congressional action in 2003 mandated that DOE conduct a competition for management of any laboratory contract that had been in place for 50 years or more without competition. Five national laboratory contracts, including Lawrence Berkeley, were affected by this action.

UC will make the final proposal and the contract publicly available after DOE makes a determination regarding a future contractor for the Berkeley Laboratory.

UC has managed Berkeley Lab since its inception in 1931, when it was one of the first laboratories of its kind showing the extraordinary value of multidisciplinary research, which ultimately led to the creation of the national laboratory system. Founded by Ernest O. Lawrence, who won the Nobel Prize in physics in 1939 for his invention of the cyclotron, Berkeley Lab has evolved into a multidisciplinary research facility advancing the forefront of scientific knowledge and addressing problems of national and global concern.

More information regarding the DOE competition process for Berkeley Lab can be found at: http://rfplbnl.sc.doe.gov/

FAULT

Continued from page 1

"Determining the past and present movement along the Karakorum fault is crucial in understanding the movement of the entire Asian continent," Ryerson said. "It's the collision of the India continental material and the Asian continental material that has caused the uplift of the Himalayas and Tibet."

The research appears in the Jan. 21 edition of the journal *Science*.

Livermore researchers measured the mid- to late-Pleistocene (from two million to 11,000 years ago) slip rate on the southern stretch of the fault by dating two moraine crests displaced by the fault at the end of the Manikala glacial valley. A moraine is an accumulation of boulders, stones or other debris carried and deposited by a glacier. The dating method is based upon the accumulation of isotopes produced when cosmic-rays hit the earth's surface.

From dating the two moraines, they determined that they become younger from east to west, which is consistent with the right-lateral motion on the fault.

"Ultimately this research should lead to the development of new models that accommodate and explain the different slip rates," Ryerson said.

The researchers further concluded that the rate of movement between southwestern Tibet and the western Himalayas should be greater than 10 millimeters per year because movement on the main fault (Altyn Tagh) along with slip from other active faults in the region need to be taken into account.

Researchers from Laboratoire de Tectonique, Institut de Physique du Globe de Paris, Institut de Physique du Globe de Strasbourg, the Chinese Academy of Geological Sciences and Total Exploration China also contributed to the report.

Classified ads

See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

Automobiles

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2005 - Brand new yellow/black Mini Cooper without the wait $23500 600 mi, 16in tires, auto AC, computer, 510-295-7424

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1998 - JEEP Wrangler- Great Condition, 46K miles, 2.5L 4cyl 5spd, hard & bikini top, nerf bar bumpers/sidestep/rear tow hitch CD/stereo $9875/BO 925-447-6085

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Overstuffed blue Sofa, recliner on each end w/matching rocker-recliner. Excellent condition. Must see. $400-both, OBO. 925-449-4981

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MOVING SALE Saturday, Jan. 22--8:30 to 1:30. Furniture, tools, antiques, Hummel plates, twin bed, rolltop desk. 1220 Hillcrest Ave., Livermore. 925-449-7888

Desk - Oak Rolltop; Oak swivel chair both in excellent condition $400 or BO 925-846-9353

Microwave oven, GE w/turntable, white, 1 cu.ft. interior volume, 1100W, used less than 10 times, $40. 925-243-0730

Washer/electric dryer in good working condition. $50 FOB Oakland or will deliver to within 30 mile radius from LLNL for additional $25 510-868-0983

kitchen table with four padded chairs,$125.Computer desk $25,Bedroom Dresser with double mirrors,Armoire, two night tables, king size headboard $500. 925-837-4331

Oak-veneer computer desk with slide out for key board, wheels. Protective glass topper. Excellent condition $50. 925-443-0188

Lost & Found

LOST Womens frameless prescription glasses in or around Building 319. Call ext. 3-0633, or 925-209-4864

Miscellaneous

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Livermore CRAB FEED: Saturday 2/12/05. The Barn in Livermore. Music, raffles, more. Call for tickets. $30 ea. ext. 3-9210 or 925-413-1897

Mig WELDER/wire feed Lincoln SP_125 Plus.Welds up to 1/4 inch material. Works great! $400 AFTER 4:00 PM 209-835-3352

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overload/helper springs,fits all 78-98 chevy full size pick ups $40 209-838-8935

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Motorcycles

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Pets & Supplies

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1986 El Dorado Mirada motorhome. 29 feet, full bath, sleeps 6, microwave, oven, stove, refrigerator, freezer, generator. $8,000. OBO. 925-456-3010

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Oakland-Montclair Dist. - AWS Vanpool seeking new

Due to space limitations, *Newsline* may withhold ads that have already run. They will still appear on the Web.

Shotts seeks 'strategic, institutional view' for Lab operations

Editor's note: Newsline *sat down with Wayne Shotts, shortly after he was named deputy director for Operations to discuss his career, work philosophy and plans for the position.*

Newsline: First off, congratulations. I am sure a lot of employees are interested in knowing your thoughts about operations. After all, you've spent your entire career at the Lab on the program side. What led you to this job?

Shotts: It was a combination of things. First, I admire Mike and enjoy working with him, and he asked me to think about this job. But second, I was challenged by how the world has changed for our Lab. If you think about it, the increased emphasis on operations is huge. Historically, it's been all about the programs. Our programs are doing well. Now there is increasing focus on the operations side of the house.

Newsline: Is it hard for you to make the transition from programs to operations?

Shotts: I really enjoyed my time in the programs. It was hard to leave NAI and Homeland Security. I am very proud of those organizations. But I think I can bring my experience — 30 years working in many organizations across the lab — to this job. I view operations as a system with many elements that all need to work together. The challenge, of course, is that operations are everywhere. It's not just in our three operations directorates. It's embedded in the program infrastructure as well. I would like to bring a strategic, institutional view to improving our operations.

Newsline: What do you see as the biggest challenges to this goal?

Shotts: Well certainly there are more demands on operations now than ever before. Safety and security will always be a top priority — as will ensuring that the Lab is a good steward of the public trust. I also hope to continue Glenn Mara's initiative on continuous process improvement. I am very interested in how we conduct our business - in ensuring that we have the best business practices in place. A key challenge is in measuring our performance. Some areas of operations are difficult to measure effectively.

Newsline: Are there specific items on the horizon you want to look at?

Wayne Shotts in 2001 when the Homeland Security Organization was unveiled.

Shotts: I am interested in adopting a more strategic approach in information technology. For example, I am impressed with the early data I've seen on moving towards diskless workstations. While all the figures are not in, if this pans out, it could save the Lab a considerable amount while streamlining the handling of classified electronic materials. I also want to improve our communications strategy. There is a real need to explain how we operate in an increasingly complicated regulatory environment to both employees and the external world.

I want to look at our assurance functions. Are there more integrated, common approaches that ensure we are addressing the most important operational or business priorities? Finally, I am excited to be a part of the new leadership team that Mike has in place. Cherry Murray is going to be terrific to work with. I think we are both excited about not only the future of the Lab, but also about the opportunity to help develop the next generation of leaders to run it.

SHOTTS

Continued from page 1

a dual role as associate director for NAI. Under his leadership, LLNL's Homeland Security Organization provided significant contributions to the Department of Homeland Security and the nation's war on terrorism. In October 2004, Shotts assumed the acting position of deputy director for operations.

"It's an honor to be selected," Shotts said. "There is increasing emphasis on operational functions at our Lab, and I believe my experience on the program side of the Laboratory will be beneficial in this position. I have seen first-hand how crucial sound operations are to achieving our missions and my goal is to implement best-in-class systems and assurances in the areas of safety, security and business practices."

Shotts received his bachelor's degree in physics from the UC Santa Barbara in 1967. He received a Ph.D in physics from Cornell University in 1973. In 1990, he was awarded the E.O. Lawrence Award for national security for his contributions to the research and development of advanced nuclear weapons and his innovative approach to improving diagnostic methods, which have aided in solving some of the most pressing problems in nuclear explosive designs.

Shotts is a longtime member of the American Association for the Advancement of Science and the American Physical Society. His research interests include applied optics, nuclear chemistry, electromagnetics, plasma physics, weapons effects, arms control and nuclear policy. He has participated in numerous panels and studies on national security, nonproliferation and counterterrorism.

Shotts resides in Livermore with his wife Jacquelyn.

riders/drivers. Leave Oakland @ 7:00am arrive @ LLNL ~7:35am. Leave LLNL @ 5:30pm arrive in Oakland 6:10pm. 510-569-7132, ext. 4-5173

Lafayette - LaMOrinda Vanpool (also WALNUT CREEK stop at Rudgear Rd): reclining seats, reading lights, 7:45-4:45, $105/mo (pretax reduction available) 925-943-6071, ext. 2-3005

Modesto - 8-4:30 vanpool with reclining seats. 2 spots open. 209-545-3866, ext. 3-8056

PATTERSON - Vanpool has seats available for 7:30-4 shift. Guranteed Ride Home Program and Pre-tax benefits. 209-892-2118, ext. 2-9502

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Ripon - Room for Rent, $500/month. Deposit, single non-smoking, female preferred, no pets 209-823-7665

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1972 - Jeep CJ-5 lifted, engine solid, smog-exempt, needs body work. $1950/OBO. 209-456-6947

1985 - Nissan pickup 4x4 w/king cab, shell & carpet kit. Runs good, body straight. $1999. Cell 925-989-7588. 925-516-1216

2000 - Chevy Tahoe, Pewter w/grey leather int. Power everything, 4WD, Z71 tow, 84k miles. $18,200 (Open to offers) 925-784-2717

Small wood utility trailer 45 inches wide by 60 inches long by 17 inches deep $100 or best offer 925-443-0188

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Sooo cute beach cottage in Santa Cruz. 2 bedr, 2 bath near boat harbor. Sun-Thurs special through March. $ 75.00/night 925-245-1114

CAPE COD, sleeps 7, A/C, 2 hrs from Boston Logan in Wellfleet on the Outer Cape. 925-443-7499

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, comfortably furnished, all amenities,close to all skiing,RESERVE NOW FOR SKIING/WINTER FUN!! 209-599-4644

Las Vegas - Presidents Day weekend get-a-way available, 2/19-2/22 at the Tahiti 5-star deluxe Studio Condominium; make offer. 209-239-4979

Wanted

HOUSE/DOG SITTER WANTED: Feb 7 thru Feb 18. House/dog sit two friendly retrievers, in home close to LLNL, while owners are on vacation. 925-243-0646

Good all around exercise bike 925-846-3548

White camper shell in good conditions that fits 2001 Chevy shortbed pickup. 209-483-8719

Looking for a Tahoe cabin to rent during the week of Feb. 22-25. Resonable rate, 4-5 people. Near skiing. Leave message. Thanks.925-449-7525.

Due to space limitations, *Newsline* may withhold ads that have already run. They will still appear on the Web.

Effort to restore endangered fiddleneck blossoms

LLNL's wild side

By Lisa Paterson

Scientists in LLNL's Environmental Protection Department are working to restore populations of the critically endangered large-flowered fiddleneck *(Amsinckia grandiflora)*, a plant on the brink of extinction.

The large flowered-fiddleneck is an annual plant that historically found in several grassland locations in the hills of eastern Contra Costa and Alameda counties and western San Joaquin County. There are currently only two known natural populations of the large-flowered fiddleneck. One population is located at Site 300 and another is located on a private ranch near Site 300 (referred to as the Carnegie Canyon population).

Researchers at Mills College began restoration of large-flowered fiddleneck populations in 1988. These efforts focused on determining the factors necessary for the establishment of additional populations of large-flowered fiddleneck, and have resulted in at least one successful experimental population at Lougher Ridge in Black Diamond Mines Regional Park near Antioch. Between 1993 and 1995, using funds obtained through the Laboratory's Directed Research and Development Program, LLNL researchers teamed with researchers from Mills College to further investigate the causes of the large-flowered fiddleneck's rarity and established an additional experimental population at Site 300 near the native Site 300 population. Ongoing efforts have been funded by grants from the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, and Site 300 management.

Large-flowered fiddleneck populations have been greatly diminished in recent years. Last spring the native Site 300 population contained only three large-flowered fiddleneck plants and has had less than 50 plants each year since 1999. These population numbers are down from the 1960s when thousands of plants of this species where found in the native Site 300 population. These population declines have also been observed in the native Carnegie Canyon population and the experimental populations at Lougher Ridge and Site 300.

In an effort to boost these populations, LLNL ecologists planted more than 6,000 large-flowered fiddleneck seeds at the Lougher Ridge and Site 300 experimental populations in the fall of 2002. A wet fall in 2002 followed by a dry winter resulted in poor success with the seeds planted in 2002. Because of this, seeding efforts were repeated in the fall of 2003 with more success and resulted in more than 700 large-flowered fiddleneck plants, which survived to flower in the spring of 2004 at each site.

LLNL scientists also continue to conduct research, initiated in 1993, at Site 300's experimental population to determine the ecological requirements of large-flowered fiddleneck. Long term research at the Site 300 experimental population, and data from management of the Site 300 natural population indicates that competition from exotic annual grasses contributes to the decline of large-flowered fiddleneck. Long term management to reduce exotic annual grass cover and restore and maintain the native perennial bunch grass community is necessary to ensure the persistence of this species.

Through these research and restoration activities, we hope to insure that the large-flowered fiddleneck populations can be sustained, and that this rare native plant continues to be one of the many things that make Site 300 a unique and interesting place.

DON GONZALEZ, LLNL

Left: Although the large-flowered fiddleneck, *Amsinckia grandiflora,* is rare, other species in the fiddleneck genus *(Amsinckia)* are quite common. Upper right: The small burned plots are part of an ongoing experiment to determine the effect of prescribed burns on large-flowered fiddleneck success. Lower right: Ecologists from LLNL's Environmental Protection Department plant large-flowered fiddleneck seeds using frames to assist with precision placement and spacing of the seeds.

BIBEAU

Continued from page 1

crystalline slabs, along with switches and optics able to handle the high-energy and power," Bibeau said.

The Mercury team was able to leverage off many state-of-the-art advances in coatings, optics, material science and computer programming, being made by the National Ignition Facility, which itself is pushing the limits of technology.

"Although we were incorporating years of laser engineering expertise into our design," Bibeau said, "we had to bring together a collection of component technologies with orders of magnitude advancement needed in their performance. In designing this unique laser, capable of 10 shots per second, we were being pushed into uncharted territory… but now there are Mercury-like lasers starting up in Japan, France and Germany.

"I've been very fortunate to have worked with some of the most creative scientists in the field. That coupled with a hard-working team who is relentless in their pursuit of success – it's been easy to have good communication and productive technical debates amongst the team," she said.

Communication is a skill Bibeau feels is often taken for granted by students entering the field of physics. As a previous adjunct professor at UC Davis, who still spends time with students and lecturing at universities, she recommends that, in addition to science and math, students should also take classes in technical writing, business communication and risk analysis, and even graphic art.

According to Bibeau, there's a dimension of training that you often don't get exposed to in college, namely: how to put together a complex well-engineered science product under a deadline.

"It helps if your project is marketable and you can articulate its virtues," Bibeau explains. "After you've done all this great science, you want your customer to use what you've created, have it work well, and ultimately ask for another. With the funds and money so difficult to get these days — because the competition is so intense — it's really a broader skill set for today's scientist."

She admits that with Mercury, there isn't the instant gratification that other, more immediate projects provide. On the other hand, she points out that almost everything about Mercury is cutting edge, so it can attract young, enthusiastic scientists. "They can get a patent, win an R&D-100 award, have publications, and give technical presentations, because the technology is so innovative," she said.

Looking back on her career, Bibeau shows no signs of regret at abandoning her early musical ambitions. Instead of being in the forefront of a major scientific endeavor, "I probably would have ended up in a smoky bar with a big brandy snifter on the piano," she joked.

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