NEWSLINE

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FROM THE DIRECTOR'S OFFICE

Dick O'Neil

Lab's Facilities Management building for future

The Institutional Facilities Management Office was formed to provide non-parochial and strategic management of the Lab's investments in its facilities and infrastructure in support of all of the Laboratory's missions.

Over the last four years, the Institutional Facilities Management Office has made significant progress in understanding and correcting some of the Lab's more difficult facilities and infrastructure (F&I) problems. The health of the Lab's facilities has been noticeably improved, and an effective partnership has been forged between customers and service providers to provide cost-effective correction of the Lab's highest priority problems.

Managing F&I is getting a lot of attention in the public sector, and especially in the Department of Energy. In March 2001, the Senate Committee on Appropriations heard testimony in support of a National Nuclear Security Administration/Defense Programs initiative to obtain new funding for F&I management across the weapons complex — as much as $300 million next year to begin addressing the growing maintenance needs of older facilities. Director Bruce Tarter reported on the need for F&I recapitalization at our Lab and the processes we have in place to ensure investments are efficiently implemented.

When the IFM Office was formed, the Lab had in place some excellent systems to identify facility maintenance requirements. These included the Laboratory's adaptation of the DOE Facilities Information Management System (FIMS) and Condition Assessment Survey (CAS) Program. The Plant Engineering Organization has

See **SITE,** *page 8*

Employee awareness key to Lab security

By Sheri Byrd
NEWSLINE STAFF WRITER

"Our biggest security measure is employee awareness," Safeguards and Security Manager Joe Krueger reminded employees on Wednesday. "Homeland Defense belongs to all of us," he stressed.

Krueger and other top members of the Lab's security team gathered at a special brown bag discussion to let employees know what increased security measures the Lab has put in place since the Sept. 11 terrorist attacks, what the policies are regarding security issues, and to address any concerns employees have regarding their security.

"Employee sensitivity and awareness to security concerns is an integral part of the Laboratory's security program," said Associate Director for Safety, Security and Environmental Protection Den Fisher, who moderated the meeting. "Your attention to and prompt reporting of potential security threats greatly enhances our efforts in maintaining a secure workplace."

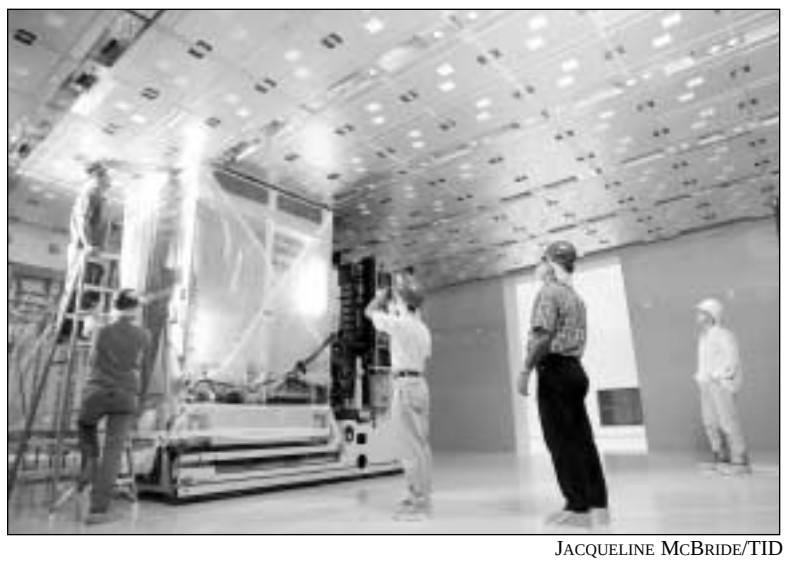
> ***"We have the people here with the right training and experience to handle the unexpected."***
>
> *–Terry Turchie*

Former FBI agent Terry Turchie, director of the Lab's counterintelligence program Security Awareness for Employees (SAFE), ensured all employees that he communicates daily with the FBI.

"I start every day by talking to our FBI liaison in San Francisco. Every day he says the same thing: There has been no specific threat against our Lab, and not even a general threat against any of the national labs," said Turchie.

Beyond staying in close communication with the FBI, Turchie assured employees that he meets daily and talks often with other Lab security officials. "Joe (Krueger) and I meet constantly, and we all share information. We keep

See **SECURITY,** *page 7*



JACQUELINE MCBRIDE/TID

Steve Andrews, Mark Kaufeldt, Steve Yakuma, Steven Humphreys, and Jeff Horner (from left) look on as the NIF laser bay transporter docks its canister containing an amplifier slab cassette (line replaceable unit) under the main amplifier frame assembly unit.

NIF transport amplifies success

By Sue Stephenson
NEWSLINE STAFF WRITER

On the evening of Sept. 26, as part of an integrated test of the transport system, the first amplifier slab line-replaceable-unit (LRU) was installed into the National Ignition Facility.

"There was a proud moment when the LRU was inserted," said Gina Bonanno, associate project manager for NIF Assembly, Installation and Refurbishment (AIR), "and even more so when it was retracted. The next day the measurements confirmed that we met our cleanliness requirements as well."

"This test required the collaboration and integration of many different groups and many years effort," said Arlen Rowe, responsible engineer for the bottom-loading slab canister, "and this test occurred seven months ahead of schedule."

In mid August, Ed Moses, NIF Project Manager, asked

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Wadsworth offers personal perspective on Lab's paradoxes

By Don Johnston
NEWSLINE STAFF WRITER

As a teenager in what is today the People's Democratic Republic of Yemen where his father, an officer in the British Army, was stationed in 1964, Jeff Wadsworth got his first exposure to terrorism.

Jeff Wadsworth

He was on the sideline when a bomb exploded in a soccer stadium where the game had been scheduled to be played. The game began on an adjacent pitch because the intended field in the stadium had been flooded by a very rare rainstorm. In a separate incident, a grenade was tossed into a Christmas party killing two children. The target of these attacks were Britons. As a result, families were moved out of Aden and from there, Wadsworth went to West Berlin and directly experienced the realities of the ongoing Cold War.

In a recent talk to the Livermore chapter of Rotary International,

See **WADSWORTH,** *page 7*

Survey Action Teams off and running

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Labs at Lab are on lookout

— Page 5

LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Friday 19

There will be a general meeting of the **LLL Women's Association** at noon in the Bldg. 543 auditorium. The association will elect new officers and discuss upcoming events. Contact: Lara Daily at daily4@llnl.gov or call 2-6932

Saturday 20

A power outage is **scheduled** from 7 a.m. Saturday to 3:30 p.m. on Sunday in the following locations: Bldgs. 391, 392 and OS394; and Trailers 3907, 3982, 4905 and 4906. Contact: Mark Cardoza, 3-0490.

Tuesday 23

In celebration of **Disabilities Awareness Week**, guest speaker David Roche will discuss "Facing Courage" at noon in the Bldg. 543 auditorium. He faces the world with a unique facial disfigurement, caused by a benign tumor of blood vessels. He will share how he has watched people's hearts open to courage as they come face to face with his disability.

Wednesday 24

Norman Matloff, a professor of computer science at UC Davis, will present **"Debunking the Myth of a Desperate Software Labor Shortage,"** at noon in the Bldg. 123 auditorium. Matloff says the concept of such a shortage continues to be promoted, mainly by industry lobbying groups. It has a great influence on career, employment and immigration policies.

Friday 26

The next session of the **Benefits Office brown-bag series** on enhancing your financial security by participating in the Tax-Deferred 403(b) will be held at 12:15 p.m. in Bldg. 571, conference room 2301. Attendance is open. Bring your lunch and your questions.

Up & Coming

B Division's fall book sale returns Oct. 29-31 and Nov. 1-2, 11:30 a.m. to 1:30 p.m., in Bldg. 132, room 1200 (Q- or L-cleared access only). Used books, videos, CDs and books-on-tape are needed; all proceeds are used to buy Christmas gifts for needy children. A collection box is available in the lobby of Bldg. 132 and Bldg. 663, and in Bldg. 253, room 1531. Contact: Lynn Groves, 2-1684.

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The Chinese American Networking Group will sell **egg rolls** at the Run for HOME on Oct. 31. Egg rolls are $1 each (vegetarian or regular). For pre-orders, contact Eric Chow, 2-0552 or chow6@llnl.gov. Pick up pre-orders in the parking area outside Bldg. 111, 11:30 a.m. to 12:30 p.m. Pre-orders remaining after 12:30 p.m. will be sold. All profits will benefit the American Red Cross.

Science 2002 talk spotlights space station

Space travel, breakfast in zero gravity and really long distance phone calls are no longer Hollywood fantasy, but are now reality every day aboard the International Space Station.

As part of the Laboratory's Science 2002 Lecture Series, NASA senior space station operations engineer Susan Minor will highlight the building, design, habitation and research capabilities of the ISS at 7 p.m. on Thursday, Oct. 25, in the Amador High School Playhouse, 1555 Santa Rita Road.

Susan Minor

The largest and most complex international construction and research project in history, the space station draws upon the scientific and technical expertise of 16 nations and is a unique platform not only for research but for the human experiment of living and working in space.

This is the third year the Laboratory is hosting its popular community lecture series, which features three Lab scientists and three external researchers.

Each lecture is free and seating is available on a first-come basis. All of the talks are suitable for anyone interested in science.

Here's the schedule for upcoming lectures:

• Peter Backus, Observing Programs manager for the Search for Extraterrestrial Intelligence (SETI) will discuss, "SETI: On the Brink of Discovery? (Search for Extraterrestrial Intelligence)," Thursday, Nov. 15, at 7 p.m., Livermore High School.

• Robert Tilling, chief scientist of the Volcano Hazards Team for the U.S. Geological Survey, will present, "Challenges in Monitoring Hazardous Volcanoes," Thursday, Jan. 24, at 7 p.m., Livermore High School.

• John Knezovich, director of LLNL's Center for Accelerator Mass Spectrometry, will discuss "From Dating Ancient Artifacts to Revolutionizing Biological Science," on Thursday, Feb. 28, at 7 p.m., Livermore High School.

• John White, a LLNL physicist, will describe "The Physics of Baseball," on Thursday, March 21, at 7:30 p.m., Tracy Community Center.

For information on the series or directions, go to www.llnl.gov/llnl/06news/community/lecture.html

Hispanic Heritage talk looks at digital broadcasting

A look at "Public Broadcasting in the Digital Age" will be presented by Frank Cruz, chairman of the board for the Corporation for Public Broadcasting, on Thursday, Oct. 25, at 11 a.m. in the Bldg. 123 auditorium.

More than 1,000 public radio and TV stations nationally will be impacted by the transition from analog to digital. Cruz will look at what these changes are and what they mean for the present and future of public broadcasting.

This talk is part of Hispanic Heritage Month, sponsored by Affirmative Action & Diversity Programs.

Cruz is the founder of Telemundo, the Spanish language network, and is a former news reporter for KABC and KNBC in Los Angeles. He has won an Emmy Award and a Golden Mike award for his coverage of Latin American issues and U.S.-Hispanic community events.

Cruz is a former associate professor of history at Cal State Long Beach and Sonoma State University. He has served on the Public Broadcasting board since 1994 and was re-elected to a second term as chairman in September 2000.

IN MEMORIAM

Arthur John Haecker Jr.

Services have been held for former Lab employee Arthur John "Jack" Haecker, who died on Sept. 28. He was 87.

A resident of Atlanta, Ga., Haecker was born in Meadville, Penn. A ceramic engineer, he earned his engineering degree from Alfred University in Alfred, New York.

While he worked at the Laboratory, he conducted research for ceramic tiles used on the space shuttle. He retired from Babcock & Wilcox, refractory division in 1986.

Haecker is survived by his wife, Mary; daughters, Mary Horder and Helen Watts, both of Atlanta; sons, Arthur Haecker III of Atlanta, Charles Haecker of Cerrillos, N.M., and Harry Haecker of Redmon, Calif.; and 13 grandchildren.

Contributions may be sent to the National Alzheimer's Foundation.

John Osher

Services will be held Monday, Oct. 22, for retired physicist John E. Osher, at 4 p.m. at the Unitarian Universalist Church in Livermore, 1893 N. Vasco Road. Osher died Aug. 21 at the age of 71.

Osher was born in Estherville, Iowa and attended Iowa State University, where he obtained a bachelor's degree in physics in 1951. He received a doctorate in physics from UC Berkeley in 1956.

After five years at Los Alamos National Laboratory, he became the head of the plasma physics group for Aeroject (AGN) in San Ramon, and went from there to LLNL where he worked until his retirement in 1990. During his long career in magnetic fusion energy he made major contributions to the development of ion and neutral beam sources, culminating in the sources used in the Rotating Target (14-MeV) Neutron Source (RTNS). After retirement he continued working as a participating guest at the Lab until his death.

Osher was a fellow of the American Physical Society. Survivors include his wife, three daughters and three granddaughters.

For more information about the services, call 447-8747.

Newsline

***Newsline* is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.**

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AROUND THE LAB

Teams to turn survey results into new initiatives

Work is under way for the Survey Action Teams that will analyze the results of the employee survey, "Assessing the Workplace," and make recommendations in seven focus areas. The team members were chosen on Tuesday and kicked off their work yesterday during a special briefing by International Survey Research, the firm that conducted the survey.

The Survey Action Teams will meet on a regular basis until December, when recommendations are due to the Survey Action Steering Committee. Until that time, each team is responsible for:

• Analyzing and interpreting the results of the survey;

• Analyzing the Laboratory's strengths and weaknesses;

• Defining goals and objectives for survey follow-up actions;

• Recommending to the steering committee specific action options and priorities;

• Recommending to the steering committee proposals for monitoring and accountability.

Each team consists of two co-chairs, 10-12 members and support staff from Human Resources, Affirmative Action & Diversity Program and Public Affairs. The seven focus areas, along with their co-chairs, team members and support staff are:

Salary and Compensation

The Salary/Compensation SAT will address perceptions of Lab employees regarding salaries at the Laboratory, including comparisons of salaries to similar organizations outside the Lab, and the Lab's use of recognition and rewards to motivate employees.

"This team will address the Lab's methodology for use of market salary surveys as a fundamental component of the salary review process," said Hal Graboske, co-chair of the team and the AD for Chemistry & Materials Science.

In addition, the team may consider ways to enhance the rewards and recognition program. Other Lab benefits, which could be considered aspects of "total compensation," might also be addressed by this team, possibly in coordination with the Work/Life Balance SAT, added Dona Crawford, team co-chair and AD for Computation.

Members of this team (along with their directorates) include: co-chairs Hal Graboske, Dona Crawford; Dave Boercker, Physics and Advanced Technologies; Jane Dignon, Energy & Environment; Matthew D. Edwards, Administration; Mike Kelly, Safety, Security and Environmental Protection; Tuijuana Mitchell-Hall, Chemistry & Materials Science; Linda Oribello, Computation; Ron Schmucker, Computation; Ravi Upadhye (pending), Engineering; Mitchell Waterman, Chemistry. Support staff: Rhonda Green, Human Resources; Don Johnston, Public Affairs Office; Frank Robles, Affirmative Action & Diversity Program.

Training/Career Development

This team will address employee concerns expressed in survey results regarding ensuring that desired training and career development opportunities are both available and appropriately utilized. "It will be important for this team to investigate how employee concerns vary by job classification and other factors," said Den Fisher, co-chair and AD for Safety, Security and Environmental Protection.

Specific areas of focus may include access to training, cross-training, career development for current and future assignments, promotional opportunities, rotational assignments, and metrics for determining training and career development effectiveness, added C.K. Chou, co-chair and AD for Energy & Environment.

Members for this team include: Dennis Fisher, C.K. Chou, co-chairs; Rita Benedict, Computation; Jor-Shan Choi, Energy & Environment; Di Cummins, Computation; Rebecca Failor, SSEP; Samira Ilyan, Laboratory Services; William J. Metz, Engineering; George Sanford, SSEP; Dave W. Swift, Engineering; Erica Von Holtz, Chemistry. Support staff: Ginny Von der Schmidt, HR; David Schwoegler, PAO; Lorie Valle, AADP.

Performance Management

This team will review the current performance systems and the associated survey comments. Work will include several members of the team benchmarking with similar external organizations to identify alternate approaches for performance management. Ultimately, this team will recommend options on how the current process can be modified to respond to employee concerns.

"This is a particularly important issue to everyone at the Laboratory and we are looking forward to understanding alternate approaches," said Jan Tulk, team co-chair and AD for Administration.

Team members include: Deputy Director Jeff Wadsworth, Jan Tulk, co-chairs; Robert Allen, Computation; Patricia Axelrod, Lab Services; Jesse Castellon, Engineering; Ike Fernandez, Lab Services; Dianne Gates-Anderson, SSEP; Bick Hooper, Physics; Merna Hurd, assistant deputy director for Strategic Operations; Lori Turpin, Chemistry; Bill Warren, Computation; Lee Younker, assistant deputy director for Science & Technology. Support staff: Gloria Kwei, HR; Sheri Byrd, PAO; Tommy Smith, AADP.

Work/Life Balance

Work/Life Balance is defined as the strategic enabling of employees to better balance their work and outside-of-work needs resulting in LLNL and personal objectives being met more efficiently and effectively.

"The goal of this SAT is to review what our employees told us in the survey assess how well Laboratory policies and programs are meeting those needs and address any gaps we find," said Bruce Warner, team co-chair and acting deputy AD for NIF.

Topics to be addressed include employee services, flexibility in work arrangements and supervisor support. This team may also compare Lab work/life benefits to other similar high-tech organizations in the region.

Team members include: Deputy Director Michael Anastasio, Bruce Warner, co-chairs; Dorothy Bishop, SSEP; Kim Cupps, Computation; Maria Fogle, NAI; Janet Frame, Computation; Ken Giannotti, Administration; Kay Gorsuch, SSEP; Dora Te-lun Nakafuji, Engineering; P. David Wilton, Lab Services. Support staff: Art Wong, HR; Anne M. Stark, PAO; Cheryl Krossa, AADP.

Employee Empowerment

The employee survey identified a number of strengths in the Lab's culture, and this team will build on those comments. This focus area includes employee relations, work climate, Laboratory culture and complaint resolution.

"Opportunities for full participation in teamwork, the broad utilization of talents, the degree of fairness and respect afforded to all employees in the workplace, freedom to speak up, challenge traditional ways of doing things, and explore innovative ideas openly without fear of reprisal are also important aspects of this area," said Bruce Goodwin, team co-chair and AD for Defense & Nuclear Technologies. "This team will develop recommendations to allow employees to reach their full potential in their work environment."

Members include: Bruce Goodwin, acting AD Bert Weinstein (BBRP), co-chairs; members: John Marion, Physics; Robin Miles, Engineering; Richard Niles, Lab Services; John Scarafiotti, Engineering; Linda Stuart, DNT; Alan Teruya, Engineering; Mary Beth Ward, NAI; Sue Wiebe, Computation. Support staff: Jack Willis, HR; Steve Wampler, PAO; Cathy McClain, AADP.

800s/900s

The 800s/900s SAT will focus on two unique concerns evident from survey results: career development and training, and employee empowerment. First, the team will address how to expand the amount of technical training to deepen, and on-the-job training to broaden, the skill set for this employee group. Second, this group has the perception of being more isolated from communicating with management than other employees.

"We will explore how bottoms-up communication can be improved for this group and to what extent are facilities and equipment reducing the ability of this employee group to contribute," said Steve Hunt, team co-chair and AD for Lab Services.

Members of this team include: Steve Hunt, acting AD Jens Mahler (Engineering), co-chairs; Tracy Adams, Lab Services; Arthur R. Carareo, Lab Services; Bill Graham, Engineering; John Greci, Lab Services; Rickey Hines, Engineering; Robin Ladd, Lab Services; David McFann, Lab Services; Tom Messa, Lab Services; Gary Moeller, Engineering; Mike Thiry, Engineering; Jimmy Utley, Engineering; Tom Willmann, Engineering. Support staff: James Cain, HR; Gordon Yano, PAO; Frank Robles, AADP.

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Post-docs

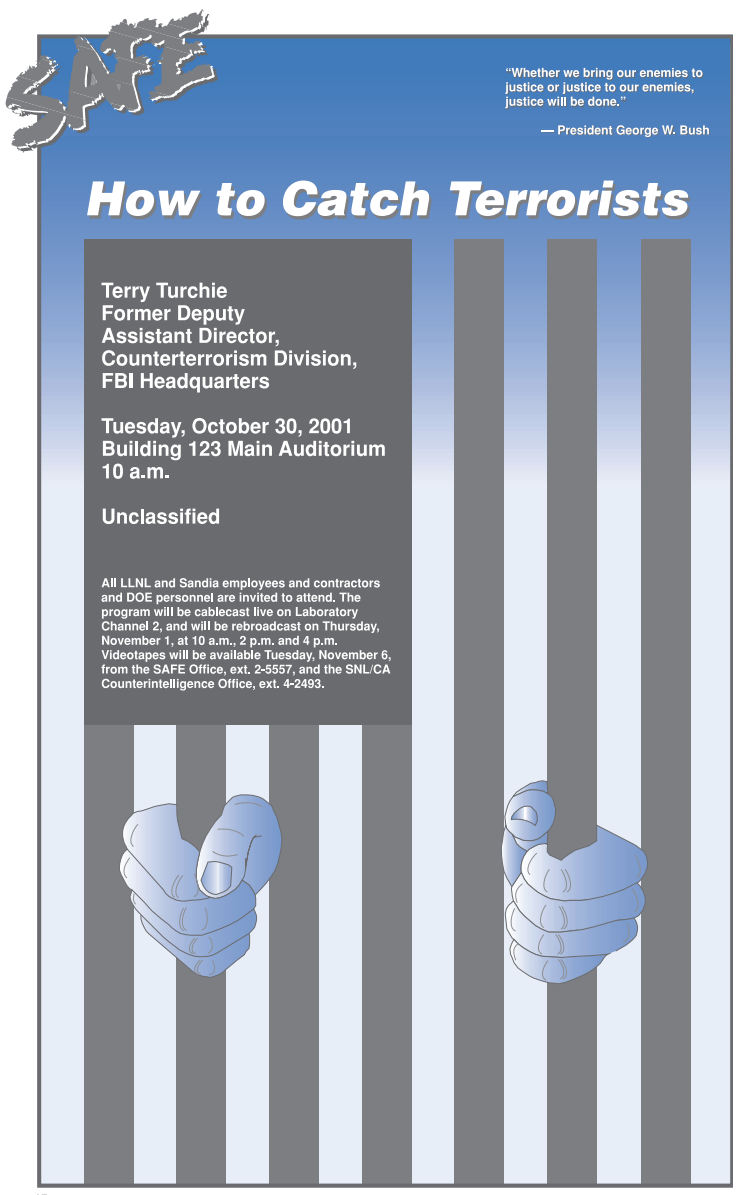
The Post-doc SAT is chartered to review the broad post-doc employee response to the survey and to focus particularly on the large negative deviation around post-doc/supervisory relationships.

"Post-docs represent the scientific future of the Laboratory, and provide a crucial link with the academic community," said Bill Goldstein, team co-chair and Physics AD. "The survey indicates that post-docs have a very mixed experience here. We have to get this right." Concerns regarding foreign nationals also will be carefully noted.

"The group will define a path forward for recommending and implementing solutions to issues identified by this unique group of employees," added Laura Gilliom, team co-chair and director of University Relations.

Members of this team include: Bill Goldstein, Laura Gilliom, co-chairs; David Clague, Engineering; Donald Correll, Director's Office; Monique Cosman, BBRP; Glenn Fox, Chemistry; Matthias Frank, Physics; Xabier Garaizar, Computation; Donald W. Hoffman, Administration; Ron Soltz, Physics. Support staff: Brenda Perry, HR; Elizabeth Campos Rajs, PAO; Tommy Smith, AADP; Helen Robinson, University Relations.

NEWS YOU CAN USE



Security Awareness For Employees

Travel made easy through new Web tool

Business Services, in partnership with Maritz Travel, is introducing a new online, Web-based travel booking tool that will allow Lab business travelers and arrangers to make reservations 24 hours a day, seven days a week via the Web. Travel reservations booked through this service are queued to TQ3 Maritz for policy check, quality control, and ticketing.

The new service is called Business Travel Solutions (BTS), and has been tested by a pilot group that included employees from all directorates. The pilot group, formed in August 2000, booked more than 400 trips and offered Business Services some valuable "lessons learned," according to project manager Kimberly Dremalas.

"We learned that BTS is best suited for domestic round trips to one destination. However, the system will accommodate trips that are more sophisticated and foreign destinations once the traveler or arranger becomes accustomed to the application," she noted. BTS is offered as an alternative to calling the Maritz reservation agents.

Key features of BTS include:

• Searches for air, car and hotel based upon preloaded business and traveler/arranger created criteria (e.g., lowest fare search).

• Enables the traveler/arranger to create keystroke and timesaving templates of trips (particularly helpful for those who travel frequently to the same destination).

• Maintains historical records of trips for future reference.

• View, in BTS, trips booked by TQ3 Maritz agents and arrangers.

• Allows modifications and changes to be made online up to the day of travel.

• Allows the traveler/arranger to save a trip for later completion.

• Recognizes California State Airfares (YCAL) fares and LLNL hotel and car rental agreements.

• Allows selection of airline seats with a convenient airline seat map (dependent on the user's platform/browser and airline's participation).

• Creates city maps and weather reports for the destination city

• Creates and sends the traveler and his or her designees an automatic e-mail of the itinerary.

BTS is owned and operated by Sabre, one of the leading automated reservation providers in the world. Sabre also owns Travelocity.com, which is available for private use, and they recently purchased their major competitor, "GetThere.Com." LLNL shares system administration with Maritz resulting in minimal administrative costs.

Training for all interested users (travelers and arrangers) is scheduled as follows:

• Thursday, Oct. 25, 1:30-2:30 p.m., Bldg. 543 auditorium.

• Wednesday, Oct. 31, 9-10 a.m., Bldg. 543 auditorium.

The sessions are expected to last 45 minutes to an hour.

To learn more about BTS, contact Rocky Darbee at 3-5538, Victoria Bonoan at 4-3791, or visit the BTS Web page at https://www-ais.llnl.gov/llnl_only/docs/bsd/travel/bts_main.html.

Technical Meeting Calendar

Friday 19

MATERIALS SCIENCE & TECHNOLOGY
"Putting Dirty Plutonium Into a Consistent, Durable and Undesirable Ceramic Form," by Bart Ebbinghaus. 3:30 p.m., Bldg. 235, room 1090 (uncleared area). Coffee and cookies will be served at 3:20 p.m. Contact: Thomas E. Felter 2-8012.

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS
"The Age of the Universe Determined to Within +/- 3.5%," by Lloyd Knox, UC Davis. Noon, Bldg. 319, room 205 (open area). Contacts: Adam Stanford, 3-6013, or Joanna Allen, 3-0621.

Monday 22

DEPARTMENT OF APPLIED SCIENCE
"Laboratory Simulation of the X-Ray Emission from Comets," by Peter Beiersdorfer. 4 p.m., Bldg. 661, room 7 (open area). Refreshments served at 3:30 p.m. for a "meet the speaker" session before seminar and at 5 p.m. after the seminar. Contact: Estelle Miller, 2-9787.

Wednesday 24

PHYSICS & ADVANCED TECHNOLOGIES
"From A to B Without a Map," by Michele Parrinello, Swiss Federal Institute of Technology. 10 a.m., Bldg. 361 auditorium (uncleared area). Contact: Giulia Galli, 3-4223, or Darlene Klein, 4-4844.

MATERIALS RESEARCH INSTITUTE
"Scale Effects in Carbon Nanostructures: Self-Similar Analysis," by Byron Pipes, NASA Langley Research Center. 3:30 p.m., Bldg. 219, room 163 (open area). Contact: Laura Martinez, martinez73@llnl.gov.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH
"Models for a Vertical Draining Film with an Insoluble Surfactant," by Richard Braun, University of Delaware. 3 p.m., Bldg. 451, room 1025 (uncleared area). Contacts: Petri Fast, 4-2649, or Leslie Bills, 3-8927.

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS
"The Evolution of the Narrow Line Regions of Active Galaxies," by Michael Dopita, Australian National University. Noon, Bldg. 319, room 205 (open area). Contacts: Wil van Breugel, 2-7195, or Joanna Allen, 3-0621.

ENGINEERING
"Devaney Tomography Course," by Anthony Devaney, Northeastern University. The course has been made available on video tape, at no charge, and will be presented on a weekly basis (every Wednesday) starting Oct. 24 through April 4. 10 to 11:45 a.m., Bldg. 131, room 2502 (cleared area). Contact Sean K. Lehman, 3-3580.

Thursday 25

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH
"Coupled Eulerian-Lagrangian Simulations of Detonation Induced Shock Response in Tantalum," by Daniel Meiron, California Institute of Technology. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: David Brown, 4-3557, or Leslie Bills, 3-8927.

V DIVISION
"Biology In An Xfel Beam," by Janos Hajdu, Uppsala University, Sweden. 2 p.m., Bldg. 661, room 7. Contact Kevin Fournier, 3-6129.

Friday 26

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS
"Accretion Disk Outbursts in Close Binary Systems," by Jean-Pierre Lasota, CNRS, Institut d'Astrophysique de Paris. Noon, Bldg. 319 , room 205 (open area). Contact: Joanna Allen, 3-0621.

DEFENSE TECHNOLOGIES
"High Performance Composite Firing Vessel for the Advanced Hydrodynamics Facility," by John Pastrnak. 9 a.m., Bldg. 132 auditorium (cleared area). Contact: Bret Knap.

R DIVISION
"TRIZ, AFD, QRA and TSS: New Analytical Tools for Combatting Terrorism," by Stan Kaplan. 10 a.m., Bldg. 132S, Summit Room 1784 (uncleared area). contact: Bob Homsy, 2-6484.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

NEWS OF NOTE

Fire safety contest

Identify at least seven fire hazards depicted on this poster. Prizes will go to the first 150 entrants with seven right answers. All entrants with seven right answers will be eligible to win the grand prize. Drawing will be held in November. Go to the ES&H Website at www-r.llnl.gov/es_and_h/, click on "safety contest" in the "News" section. Print and fill out the form, or write your answers on a sheet of paper, along with your name and L-code. Send to Fire Safety Contest, L-088. Deadline is Nov. 2. Look for the answers in *Newsline*.

New high-explosives 'labs' on site

The Protective Force Division (PFD) has increased its capability to search for explosives by deploying K-9 high-explosive search teams. Buddy, a 3-year-old yellow lab, and his handler Michael Toste, demonstrate a search. The dogs have been on site since Oct. 9. The Detection Support Services (DSS) Company supplies the dog-and-handler teams. The K-9 teams will be assigned primarily to the Bldg. 411 gate (Shipping/Receiving area) and the East Main Gate to conduct searches of delivery vehicles and packages. PFD will periodically place K-9 teams at select employee access control points and facilities throughout the Laboratory.

JULIE KORHUMMEL/PAO

BRIEFLY

Parking lot closed for HOME run

Computation Directorate is coordinating preparations for the Oct. 31 "Run for HOME" event, to kick off LLNL's 27th annual HOME campaign. To make room for the event and set up the day before, parking lot Z-1 will be closed on Oct. 30 and 31.

In its place, the Sandia parking lot will be available and the Sandia's pedestrian entrance will be manned on those two days (7:30-9 a.m. and 3:30-6 p.m. Tuesday, and Wednesday from 7:30 a.m. to 6 p.m.) so employees can conveniently use it as an alternative to lot Z-1. Employees are asked to plan ahead and make sure you do not leave your car in Z-1 overnight on Oct. 29, so the lot will be clear to set up for the event.

Details and a map are located at: http://www-r.llnl.gov/home2001/runforhome/runforhome.html

In other "Run for HOME" news, Computation Directorate is still looking for Lab entertainers to perform at the race and Agency Fair on Halloween, Oct. 31. If you can juggle, tie balloon animals, or provide any other circus-type fun, the Run for HOME wants you. If you would like to perform, contact Jennifer Continente at 2-6644 or continente1@llnl.gov.

Finally, "vintage" T-shirts from previous Runs will be on sale at the Agency Fair for 1$ each. Look for a table near the other concessions (egg rolls, etc.). The money raised from the sale of these shirts will go to a charity requested by the buyer, or will go to the general United Way fund.

Guidelines for screening mail

Employees have requested information on Laboratory preparedness regarding possible exposure to anthrax and other biological agents delivered through the mail system. No specific threat has been made against the Laboratory, however precautions are in place to protect against potential incidents.

LLNL mailroom personnel are trained to look for suspicious items sent through the Postal Service. Current standard procedures are to examine packages and mail at the mailroom. Materials may be X-rayed if there is a question regarding contents. Laboratory forensic and biodetection capabilities will be utilized, as appropriate. Required processing procedures have been re-emphasized to mailroom staff to increase employee safety during this period of heightened concern.

Employees are also advised to screen mail before opening. Some characteristics of suspicious packages and letters include the following:

- Excessive postage.
- Handwritten or poorly typed addresses.
- Incorrect titles.
- Title, but no name.
- Misspellings of common words.
- Oily stains, discolorations or odor.
- No return address.
- Excessive weight.
- Lopsided or uneven envelope.
- Protruding wires or aluminum foil.
- Excessive security material such as masking tape, string, etc.
- Visual distractions.
- Ticking sound.
- Marked with restrictive endorsements, such as "Personal" or "Confidential."
- Shows a city or state in the postmark that does not match the return address.

In the event that an employee receives a suspicious item, do not open it. The following actions should be taken and are consistent with FBI and Center for Disease Control (CDC) guidance:

- Dial 911 and report any suspicious, unknown substances. On site, you will reach the LLNL Emergency Dispatch center.
- Report the location and provide as much information as possible to the emergency dispatcher.
- Have someone meet the emergency responders, at a safe location, to direct them into the scene.

If a letter is received that contains an unknown powder or other substance:

- Do not shake or empty the envelope.
- Isolate the specific area of the workplace so that no one disturbs the item.
- Immediate evacuation of the entire workplace is NOT necessary.
- If you have touched the envelope, wash your hands with warm water and soap for one minute.
- Do not allow anyone to leave the office who might have touched the envelope.
- When emergency responders arrive, they will provide further instructions on what to do.
- Do not walk around with the letter or shake it.
- Do not panic.

If there are any questions regarding response procedures, contact the Emergency Management Division at 2-7595. This is a 24-hour number.

CLASSIFIED ADS

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

AUTOMOBILES

1998 - Ford Windstar GL, 14K miles (driven by my mother), Like New, Dual AC, Roof Rack, $14K. 925-443-4984

1990 - 1990 Mitsubishi mini-van 7 passenger. Four cylinder. Original Owner.Runs good. $3,000 o.b.o. 510-482-9833

1989 - Acura Legend,4 door,A/C,CC,PS,Sunroof,good commuter,needs brakes soon,161k miles,$1800 OBO 925-240-6234

1985 - Buick Regal Sedan: PS, PB, AT; good condition; just smogged. $1800/OBO. 925-462-6308

1998 - Jetta- Black 4 door with tinted windows. Gets great gas mileage. Asking $8000. 209-825-0633

2000 - Chevy Van w/Explorer Conversion, loaded, TV, captain chairs, etc., 4K miles, mint condition. Planned to travel, plans changed. $27K 925-634-4184

1995 - Chev Lumina 7 passenger van. Exc cond, fully loaded, 20+ mpg, 110k highway miles. $5,495 925-846-1389

1990 - Ford Taurus sedan 4D V6 3.0l auto excellent running condition 160kmiles new transmission good tires $3000. 510-531-9796

1995 - Windstar GL Ford minivan. All the standard GL accessories and extras. Excellent maintenance. Excellent condition inside and out. 64,500 mi. $7,900 925-830-0637

1989 - Acura Integra, 4 door, grey, air, power windows, 5 speed, original owner, all maintenance records, lots of miles but it runs and looks great, $3,100 925-484-4099

1994 - FORD Escort GT Hatchback, 5 Spd, AC, PS, PW, PDL, AM/FM/CD, CC, ABS Brakes, Alloy Wheels, Sun Roof, Spoiler, 68K Mi, $4500 OBO 925-373-2516

1970 - Firebird, $11500, $19000 invested, everythng new, gone to college, 925-447-2320

1991 - Chev. Camaro 4spd auto trans, insurance friendly V8, 400 watt sound system, good tires and brakes, runs well $4000 or B.O. 925-373-9439

1985 - Honda Civic Wagon, Runs great, engine rebuilt in 1995, manual 5 speed, No AC, ~145,000 miles, $1800 or best offer 925-449-0947

1995 - Ford Aerostar, excellent condition, 73,000 miles, 4L engine, seats seven, $7,000 925-443-4366

1986 - Pontiac Firebird rebuilt 305 V8, 5 speed transmission, new black paint job, runs good $2,800 or B.O. call now 209-529-1239 or 209-605-4881

1998 - Ford Expedition XLT 5.4L, all towing options, third seat $21,000 925-443-0499

1985 - NISSAN MAXIMA SE 4dr sedan, 234K miles, 5 speed manual trans, $1,900 OBO, very reliable so far 925-447-6719

1985 - 1985 Mercury station wagon, good condition with new carburetor, muffler and battery, tune-up. Asking $1100 925-846-2144

1967 - Austin Healey Spite $3800.00 OBO 925-454-8790

1969 - VW Bug. 6,000 mi. on new engine. No rust. Lots of spare/restoration parts included. Moving, must sell. $2500 OBO. 209-836-5549

AUTOMOBILE ACCESSORIES

Parting out 1984 Honda Civic 209-531-1527

4 chevy truck rims off 1980 4x4 with center caps 15x8 6 lug.2 mounted with dick cepek 33x12:50-lt. best offer 925-846-0717

BICYCLES

Cat Eye Cordless speedometer model CC-CL100, receiver only. In working condition with new battery. $10. 925-829-4124

Ladies 10 speed $15. Girls toddler starter bike. $5. 209-832-1321

Trek 12 speed road bike. Steel frame Shimano 105, Look pedals. Good cond. $90./BO. 925-443-3447

BOATS

1982 Malibu - Motor runs good but needs exterior work. $2500 or B/O 209-982-0692

CAMERAS

Nikon AI lenses: 55 mm macro f2.8, $200; 105 mm macro, f2.8, $300. Nikon F body/DA1 action finder $250. 925-443-4292

ELECTRONIC EQUIPMENT

GAMEBOY Pocket plus Gallery II game together or seperate. $25 OBO 925-447-2697

GIVEAWAY

1988 - FREE Toyota Tercel-not running-great for parts! 925-454-1968

Hot Tub cover, large insulated cover in good condition, free. 925-454-1526

Two twin beds (matress, box springs, metal frame); excellent condition. Free 925-828-2208

Dog shelter, about 4x4x4 feet, painted plywood with raised platform. Keeps that large dog out of the wind, rain, and sun. 925-455-5655

HOUSEHOLD

Oak dining table, round, claw feet, six ornately carved chairs, one leaf, opens to 72 inches. $495.00. 925-516-1216

Kenmore stacker washer/dryer, large capicity in excellant condition. $450 obo 209-462-5932

Hanging Ceiling Light-Octagon, beveled glass, antique-brass frame. $35. 925-484-0475

Cradle, Jenny Lind spindles, Brown, $45. 925-294-9022

Craftsman Yard-Man Riding Mower. 8.5hp runs great, 27.5in cutting deck, about 2 yrs. old. In great condition, no longer need. $850 obo. 925-455-6310

Refrigerator, 17 cubic feet, white, clean, works great, $95. 209-823-4795

Oak dining room table, one leaf, 4 chairs $300, Oak Entertainment center $450. 925-447-4797

Oak Entertainment center w/glass doors. Good condition. $175.00 obo 925-373-3429

Entertainment center, 67H x 54w x 18d, glass cabinets w/shelves, two drawers, separate shelves for TV and DVD/VCR player, medium-dark wood. $100/BO. 925-443-2821

Moving. Must sell. Queen size futon with thick mattress and cover. Wood frame. Like new. $300. 510-531-9796

Matching wall units (2). Fine finished pine with shelves and lower cupboard. Terrific for entertainment center or nicknacks. $50 each. 925-371-6882

Protect-A-Child pool safety fencing. Four feet high segments. 125 feet in length. Excellent cond. $750 209-833-3785

Antique wicker peacock chair and wicker side table with 3 shelves. $150 for both. 925-455-5655

Desk, white melamine, 65x30 with 3 drawers and corner storage unit with 2 shelves. Great condition. $150. 925-455-5655

Custom made Victorian black & brass day bed. Like new. Comes with trundle and mattress. $500. 925-373-1521

Refrigerator, 3 yrs old, large side-by-side, excellent condition, white, water disp/ice maker with filter, $600 OBO 925-447-1890

Brown couch in good condition, $100 ; queen size bed, $50 925-449-3165

LOST & FOUND

Multi blue scarf lost between the west cafeteria and T1277 drive way. 209-823-4833

MISCELLANEOUS

Full size professional Drafting Table. $100.00 OBO 209-983-9715

Prepare for Winter: mens dark brown leather jacket, large, removable lining, like new, $95. 925-454-9291

Craftsman Yard-Man Riding Mower. 8.5hp runs great, 27.5in cutting deck, about 2 yrs. old. In great condition, no longer need. $850 obo. 925-455-6310

The Phonics Game. $90.00. 925-462-6308

Garage Sale. Oct 27 & 28, 8am - 5 pm. Furniture, kids stuff, and misc items. 525 James St, Livermore 925-373-3429

Remote Control Car: Honda S2000 30MPH $200 Contact Jake 925-449-4514

Toddler bed, excellent condition, $25. 925-447-4797

Wine barrel 60 gallon french oak, used 4 years for red wine. Excellent Condition $75.00 925-443-7752

Welder, Miller Thunderbolt XL CC, AC/DC, 225/150 amps, input 230 volts 47.5 amps, good cond., $250obo. 925-837-4542

MOTORCYCLES

1998 - Kawasaki Vulcan 800 Classic Green Fenders w/White Trim Low Mileage 1700. Garaged New Battery Cover and travel bag included Asking $4000 925-447-4763

1987 - Yamaha Moto4,New tires,carb.,& electrical parts. Runs & looks exc. very strong $1500 OBO 925-443-4350

1996 - Harley Davidson RoadKing, only 9 K Miles.Lots of extras.Mint Cond. $17,500 510-357-3995

1989 - Harley Sportster, lowered, new tires, Corbin Seats, good condition $3900 obo 925-895-8999

Cobra boulevard exhaust pipes for a 1996 Honda Shadow 600 motorcycle. Like new. Make offer. 925-829-2581

MUSIC INSTRUMENTS

Casio CT-420 Keyboard; excellent condition. $50.00/OBO 925-462-6308

PETS & SUPPLIES

Cockatiels, 2-3 months old. Greys, Lutinos & Pearls. Friendly & tame $35.00 each. Eves- 925-606-7128

Blue Front Amazon, hand tame, cage plus accessories. $500 925-294-8632

Dachshund male,about one year old. Free to a good home. Moving, unable to take with us. Pg. 02734. 209-823-7696

Young pheasant roosters for sale $5.00 each 925-447-6728

Pomerian Puppies Two males $400.00 with AKC papers. 209-951-1934 leave message on machine. 209-951-1934

Chinchilla + cage and accessories. Cuddly pet with nice personality. $35 209-239-5685

RECREATION EQUIPMENT

Portable basketball backboard. $75. 925-485-1988

Adjustable RESISTANCE STEPPER,Tunturi C419, w/timer etc,vgc,$75bo,after 5:oo p.m. 209-835-4138

SNOWBOARD Hazard brand, size 51, red with bindings. Excellent condition $200/obo 209-599-5071

Health Rider, seldom used. Excellent condition. $50.00 925-373-1964

RIDESHARING

Express your commute, call 2-RIDE for more information or visit http://www-r.llnl.gov/tsmp.

Modesto - 14 psgr luxury vanpool, 8-4:30, $113/mo - less if you want to help share driving? 209-521-9047, ext. 2-5177

Ceres/Modesto - 14 psgr Enterprise deluxe van, 7:00-3:30, $120/month 209-537-0229, ext. 3-6631

Danville - Near Camino Tassajara & Crow Canyon - 2 drivers/riders seeking additional member to carpool from south Danville, 8:00-4:45. 925-736-9441, ext. 2-1039

Orinda/Lafayette/Moraga - Lamorinda carpool looking for 4th member, lab hours 8:15am-5pm 925-253-0498, ext. 2-9823

Danville - Diablo Rd./Front St. area needs driver/rider to complete four-person carpool. 8:15-5:00. 925-831-1569, ext. 2-9858

Walnut Creek - Would like to start carpool from Rudgear Park and Ride. Hours 7:15-4:15. 925-938-3570, ext. 4-3385

SERVICES

Learn to SQUARE DANCE. The Pleasanton SINGLES & PAIRS Square Dance club. Beginner Classes start Oct. 9 & 16 and are free. 925-449-5927

FLOORING INSTALLATION: Carpet, linoleum, tile and stone. Licensed/bonded/insured. Very reasonable rates. 925-516-9510

Roofing, 28 yrs experience, fully insured, free estimates 925-454-9200

Expert painting experienced journyman, indoor /outdoor, small jobs welcome, free bids. 925-828-6190

TUTORING in high school and college math and chemistry. 925-443-2095

Want someone to clean your house 1-2 times per month? Give us a call to discuss the details. 209-836-9082

Headshot Photography for actors, entertainers & musicians - Livermore studio - 925-449-0107

Tutor available. Honors high school student available to tutor in multiple subjects, $10/hr. 925-447-4345

20% off on a professional massage. Get rid of your stress and muscle pain. Swedish, Shiatsu, deep tissue, and more. AMTA/Licensed 510-791-8623

Manteca Area - Babysitting and Pet Services. Very reliable. 209-823-5085

SHARED HOUSING

Livermore - Separate unit in Springtown. 1 bedroom, w/kitchen, living area and bath. N/S, N/P. $650/mo plus utilities, deposit. 925-455-8108

Livermore - Room in 3BD/2BA house, all privileges and amenities even cable modem, furnishings available, great find! short or long term, NS/NP $450 + 1/3 utils 925-449-3165

Livermore - Room for rent share 2BDM 1BATH.Rural setting.All privileges.Horse O.K . $400.00/MO+$350.00DP. 925-371-5371 925-371-5371

Livermore - Room for rent. $850/mo.+dep. Close to Bart and Downtown. Will consider pet. Southside location. 925-443-0485

TRUCKS & TRAILERS

1989 - Nissan Pickup with Extended Cab, V6, AC, top-of-the-line model, excellent condition, 103K miles. 925-454-8827

1978 - Chevy Luv pick-up, 4 cyl, manual trans, recent new ext. paint, runs good, original owner, $2000 510-538-7444

1991 - Ford F-150, 4X4, lariat, air, pwr windows & locks, extended cab, 351 V8, cd player, white, orig owner, 120k miles, all maintenance records, $7,100 925-484-4099

1977 - Chevrolet Suburban 4 wheel drive trailering special. 50k on 350 Target Master motor, good rubber, Warn winch, $2200 o.b.o 925-627-9827

1999 - Nissan Pathfinder SE, 5 Speed, Loaded, Charcoal leather, CD, 45K miles, Excellent condition, $21.5 OBO 209-835-9589

VACATION RENTALS

Twain Harte - - Sleeps 4/6, Weekly rental $600. Above snow level. Fully equipped, w/hot-tub, & great parking. Available some weekends @ $175. Peace and Quiet. 209-825-6080

Tahoe City - Trade 3 BR Condo in North Tahoe for similar Condo in Maui. Does not have to be same dates. 925-672-5130

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished,all amenities, Park with Lake, tennis etc.Off-season Rates! Reserve Holidays/Skiing Now! 209-599-4644

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

WANTED

ROTO-TILLER with rear mounted tines, must be in good condition, for use in small garden. Will pay reasonable price. 925-456-7972

Inversion Table, used for hanging inverted to apply traction to back. Call aft 6pm please, leave mesg. 209-832-2056

Wrought Iron Bakers Rack and patio/bistro table. 209-462-5932

TV rotor with or without antenna, also wanted hunting property in Livermore area 925-447-4961

Rowing machine wanted. One that stands upright for easy storage and that has adjustable tension. Thanks. 925-443-0743

Used, Built-In, MINI DISHWASHER WANTED. Same features as full sized, but only 18 inches wide. [Cannot use your full sized - sorry]. 408-261-1228

Wanted: Bridge School Concert Tickets for October 20 or 21 at Shoreline 925-462-0577

Looking for someone to clean my Livermore home every other week. Flexible days; house is new, free of clutter and kept very neat. 925-455-4208

Three-quarter ton truck for towing, extended cab preferred. $10K approx. 925-443-4562

Wanted: old wind up record player and parts. I am also interested in 78 and 45 records 925-449-0388

Computer Monitor(PC). 15 inch screen size or larger, good working condition. 925-600-7328

Fimo clay artist seeking pasta machines for art projects. Need two of them. Recycle your unused machine! 925-447-4763

Stereo equipment, speakers, stereo consoles, amps, tuners, tube equipment, old electronics wanted. Working or not. 925-443-2954

Complete LOFT BED setup with bed, desk, drawers, and bookshelf (mattress not needed). Reasonable price. 925-449-3499

Iris bulbs, any color any amount. 925-447-4797

Bicycle tag-a-long/third wheel for child. A bad tire/tube is OK. 925-456-5620

I am looking for books or magazines with information on model sailboat building/racing. 925-706-7444

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

SECURITY

Continued from page 1

each other informed and tell each other what we need to know."

He discussed how trained leaders from several Laboratory organizations who serve as LEDOs work with leaders from ES&H, Security, Plant Engineering and Public Affairs to handle emergencies from one central building. "Our emergency response team is always asking 'What if' questions and trying to lay out plans to handle possible incidents." He indicated that terrorist attacks were an emergency related assumption long before Sept. 11.

With confidence he informed employees, "We have the people here with the right training and experience to handle the unexpected."

Krueger recalled that on the morning of Sept. 11, the Lab's EMC was activated within an hour of the first plane striking the World Trade Center. Simultaneously, the city of Livermore deployed four additional patrols around the Lab area while employees evacuated calmly. "All of this went according to plan and was invisible to most of the community, but crucial to our security."

Since that day, Krueger said, many security changes have been made.

Lab security is always at one of five classification levels, Security Conditions (SECON) 1 though 5. SECON 5 is considered normal with no threat; SECON 1 is an imminent threat specifically to this Lab. On Sept. 11, Lab security was moved immediately to SECON 2. It has since been changed to SECON 3 and may continue to fluctuate, Krueger said.

Some of the heightened SECON measures include closing some gates and streets, and controlling some parking lots. Patrols have also increased, including those to outlying areas such as the employee children's center and other vital offsite locations. Bomb-sniffing dog patrols are now on site. All delivery vehicles are searched, and mail screening procedures have been reviewed and guidance distributed to all employees on handling of suspicious packages.

Lab Fire Chief Randy Bradley said that although the fire department has responded to "several white powdery substance calls" in the surrounding area, they have all proved harmless, and there have been no "white powder incidents" on site.

"Remember," he stated, "No white powdery substance harboring an infectious agent such as anthrax can harm you immediately, so there's no cause for panic. If you see something like that and you don't know what it is, and it's in a place it shouldn't be, by all means call 911."

He also reminded employees of the high level of training and experience in the Lab's fire department, with half the staff licensed paramedics and the other half certified emergency medical technicians.

Rick Watts, a physician with Health Services Division, explained that the Lab's clinic is connected with county, state and federal health care systems to handle any health emergency. "We have antibiotics on site and we have access to more. We are also beefing up our training of clinical staff to be more aware and prepared for any exposure."

Turchie remarked that the tragic events of Sept. 11, and America's reaction to them, "has brought the world together to focus on a significant issue that law enforcement has been concentrating on for a long time."

He recounted the numerous terrorist acts in America and on Americans of just the last 10 years: the 1993 World Trade Center bombings, the Unabomber, the Atlanta Olympics, bombs at several abortion clinics, the Khobar Towers U.S. air base bombing, the U.S. embassy bombings in Africa, and the USS Cole in Yemen. He also recounted tales of major terrorist plots thwarted by U.S. efforts from New York City to Sacramento.

"There have been threats before – hundreds of them every year – you just haven't heard about them," he said. "So be alert, be sensitive and know that this threat is not new to us."

WADSWORTH

Continued from page 1

Wadsworth, deputy director for Science and Technology, briefly recounted these and other experiences from an itinerant upbringing that shaped his perspective and serendipitously paved the way to his eventual arrival at the Laboratory.

Born to British parents in Hamburg, Germany, Wadsworth had lived in Holland, India, Singapore, Aden (Yemen today), West Berlin, and England by age 16. He studied at the University of Sheffield in England and came to the United States to collaborate with Professor Oleg Sherby at Stanford University in 1976. Wadsworth worked at the Lockheed Missiles and Space Company (now Lockheed Martin) from 1980 until he came to the Laboratory in 1992.

Under the title "A Personal Perspective on the Lawrence Livermore National Laboratory From Inside and Out," Wadsworth discussed his views of the Laboratory and the "special challenges" it faces, not the least of which is reconciling seemingly-contradictory elements.

"Livermore Lab is a small city within a city. It has all the complexities of not only being somewhat like industry, but it has this unique university component as well — we all work for the University of California," he said. "We're hopelessly open (our salaries and rankings are published), yet we do classified work, and we have this tight security. We experience a bunch of paradoxes, things that are seemingly at odds."

Wadsworth went on to describe the "seven paradoxes of Livermore Lab." Example one: Security concerns have never been as high as they are now, yet the Laboratory "needs to hire foreign nationals" to fulfill its missions.

"We need to hire foreign nationals to do our work," Wadsworth said. "From a world perspective, most of the work done in science is done outside the United States. Over 50 percent of the people graduating from American universities in fields of interest to our work at the Laboratory — for example, chemistry, physics, computing, biology, and engineering — are not citizens of the United States."

Many foreign nationals will likely become American citizens and go on to work in industry, teach in American universities, or work in national labs "as I did," he said. "But if you alienate foreign nationals by saying 'we're not interested in you now,' not only are you cutting out 50 percent of the people available to do the work, you're ticking them off and hurting future prospects for recruiting their own students or working with them in industry or in Laboratory interactions."

Over the last three years, on average about two-thirds of the 400 graduate students who applied for four openings in LLNL's Lawrence Livermore Post-Doc Fellowship program were foreign nationals.

> ***"The values upon which the Laboratory was created are not necessarily the values of the people coming into the Lab today."***
>
> *–Jeff Wadsworth*

Hiring and working in partnership with the best qualified researchers, including foreign nationals, is critical to the continued success of cutting-edge research programs such as the Accelerated Strategic Computing Initiative, or ASCI, which relies on a wide range of academic collaborations across the country, bringing together the best people in the field, Wadsworth said.

"That's how you execute large programs. They are not done in confinement, but by bringing in the best people in the country," he said, noting that the "multidisciplinary team science" pioneered by Ernest Lawrence remains a hallmark of the Laboratory.

Another paradox is reconciling the Lab's "one size fits all" reward and work life system with four generations of employees, each with different values, Wadsworth said. Generation Xers are less interested in retirement benefits and job security, traditionally valued by longtime employees, and more interested in flexible schedules, telecommuting and bonuses, for example. "You have this orthogonality. The values upon which the Laboratory was created, are not necessarily the values of the people coming into the Lab today."

Other paradoxes included:

• Congressional, DOE, and UC oversight of the national labs is at an all time high, but there's pressure to cut bureaucracy. "We have more oversight and more review committees than ever that tell us how to do business," Wadsworth observed. "Back when the labs were formed, the government owned the mission and the contractor decided how to execute it. The government decided 'what' and the Lab decided 'how.' The 'what' and the 'how' have become confused in my opinion. We need to understand and clarify roles and responsibilities better."

• The nature of science and discovery is "unpredictable and non-linear," but scientific breakthroughs are asked for "on schedule." Wadsworth said it's important to realize that breakthroughs are typically 10 to 20 years in the making and are the "outcome" of a process that is by its very nature unpredictable.

• There is less flexibility to invest in science, although the Laboratory Directed Research and Development (LDRD) is very valuable and yet it is high risk research projects made possible by flexibility of this kind that have yielded "terrific breakthroughs."

"You have to have flexibility to invest in science in large labs," Wadsworth said. "You need the flexibility to apply expertise developed in one area to other areas of science."

• Completing projects on cost and schedule is an imperative, but major DOE projects are funded "year-to-year" with "available" funds, and inflation factors are inconsistently applied. "The system we have doesn't pay for everything up front," he said. "When you buy an aircraft carrier, the money is put in an account for completion of the entire carrier. If you do a science project you don't have everything up front."

Nonetheless, the National Ignition Facility and ASCI, "two of the most exciting science projects in the country are on target," he said.

• Invention and the commercial impact of Lab developed-technologies is desirable, though the success of commercial partnerships have been "problematical," according to Wadsworth. "There's a lot of technology at the Lab and we like to get it out."

The competitors of companies that work with the Lab through cooperative research and development agreements often complain about public funds being used to bring technologies to fruition. "If you fail, everything's OK," Wadsworth joked. "But if you succeed, you face some interesting issues."

"We've run into problems with a lot of our successes," he said, citing Micro Impulse Radar, EUVL, and Peregrine as technologies that had to overcome hurdles on the way to commercialization.

In prefacing his talk, Wadsworth recalled how, as a student of metallurgy at the University of Sheffield, he had taken a great interest in research being conducted in the United States and in California in particular. "It's where a lot of the most advanced, exciting work was being done," he said. "At that time I sent for a paper reprint from Livermore Lab. That was the first time I saw this name 'Lawrence Livermore' and I remember thinking 'gee, that's really interesting, I wonder what Livermore is like and what that Lab's like?"

SITE

Continued from page 1

worked with DOE to make FIMS and CAS a Labwide tool to identify, catalog and assess real property maintenance. The IFM Office has facilitated an effective prioritization process to focus all available funds on the Lab's highest mission priorities.

Prioritization of maintenance entails identification of all deficient systems that would have an immediate impact on each organization's mission goals. The highest priority projects are addressed with funding within a year. Important, but relatively less critical deficiencies are ranked for attention within two and three years. This list of projects is defined as the essential maintenance backlog, which is about 20 per cent of the total backlog.

After re-engineering many aspects of operations in the mid-1990s, the Lab began reinvesting $6 million of overhead cost savings in F&I in 1998 to begin reducing the backlog. Over the last two years, this level of investment, now a permanent part of the Laboratory Facility Charge (LFC), has grown to more than $8 million due to productivity improvements that have resulted from earlier investments. Each year these funds are directed to 150–200 highest priority projects that are co-managed by the Plant Engineering and the IFM in cooperation with the organizational customers.

As we have evolved the prioritization process, the total backlog has stabilized, but the essential backlog has grown from $39 million in FY98 to $46 million in FY01. This is due to an annual influx of $12-$15 million in new deficiencies each year and a shortage of capital funding directed at projects over $500,000. Historically, Line Item and General Plant Projects have contributed at least $10 million each year to fund large institutional or non-programmatic capital improvement projects, such as large roof replacement, electrical and other utility upgrades, new infrastructure facilities, etc. Recent programmatic budget pressures have reduced the average capital investment to less than $5 million per year. Since a major essential project, such as replacing a $3 million roof in a single year, would effectively cripple the Lab's ability to correct many of its other highest priority projects, the backlog growth cycle will continue unless additional funding can be found.

To address the lack of adequate space for offices, the IFM has sponsored "maintenance catch-up" projects to revitalize some of our older, structurally sound buildings. Bldgs. 314 and 315, two 50-plus-year-old barracks buildings containing 138 offices, were brought into good condition for the Chief Financial Office by replacing worn out windows, air conditioners, rugs, lighting, etc., and painting everything. Approximately 1,000 offices have been revitalized through this process in the last four years.

Today, approximately 600,000 square feet of excess (primarily laboratory) space has been returned to the institution. About half of this space is in contaminated legacy facilities that should be decontaminated and demolished (D&D). The two most visible legacies are Bldg. 251 and about 100,000 square feet of the former AVLIS facilities. Bldg. 251, an excess nuclear facility now managed by Hazardous Waste Management (HWM), needs significant cleanup funding to move out of the costly nuclear facility category. Similarly, present DOE funding remaining after the close-out of the USEC/AVLIS Program will address only about a third of ongoing ES&H surveillance and cleanup tasks.

Four years ago, the IFM Office sponsored a pilot project to D&D several contaminated support buildings in the former Bldg. 222 Chemistry and Material Science (CMS) complex. The Space Action Team (SAT), developed to manage contaminated and hazardous projects, demonstrated safe, cost-effective cleanup and D&D of five reinforced concrete buildings. Approximately 1,100 tons of materials were removed for about $80 per square foot, including all waste disposal costs. Recently SAT received the Environmental Protection Agency's Greening the Government Award for excellence in pollution prevention and recycling in D&D projects.

We now invest about $1 million in D&D each year to deal with the worst local ES&H problems. Since D&D costs for the low contamination level legacies (Bldgs. 212, 222, 412, 43, and 865) will be more than $50 million, timely progress will require an influx of D&D funding.

Over the last several years, DOE, the GAO, several DoD organizations, and many of our sister DOE organizations have identified the Lab's maintenance prioritization and execution, D&D, and facility revitalization efforts as good examples of effective F&I management. If Congress approves the new NNSA/DP F&I initiative, the Lab should be in a good position to win new funding to correct or improve our F&I elements.

Being the Institutional Facilities Manager has been a challenging and rewarding assignment. Looking back, the most important accomplishment of the IFM Office was to build an effective, Labwide team to create trust among customers, service providers and Lab management. This team now exists and they are the ones who have made most of the IFM successes possible.

Dick O'Neil was the Laboratory's Institutional Facilities Manager from 1997 to the beginning of 2001.

NIF

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Bonanno what it would take to demonstrate an LRU insertion into the beamline sooner than scheduled. According to Bonanno, Jacobs was in the process of completing enough of the beampath so it could be pressurized for an LRU insertion into the main amplifier. Pressurization is necessary to maintain cleanliness when the beamline is opened up to the LRU canister, which is pressurized slightly less than the beamline. This positive pressure of clean air keeps particulates out of the beamline during LRU insertion.

Bonanno told Moses she thought they could do it. "It's important to have a schedule that shows you doing things in a methodical and logical manner, but if the technical work and supporting facility is ahead of schedule, why not take advantage of the situation?" Bonanno said.

An integrated effort of many years

In mid-August, an integrated team started planning how they would insert the first LRU into the system. This team drew upon experts from across the NIF organization. In addition to the AIR team, two other key groups involved were the Beampath Infrastructure System (BIS/Jacobs organization) and the Amplifier Group. These organizations provide the beamline and the amplifier slab LRU. The large optics and the optics processing organizations provided non-production laser glass used in the LRU. The Cleanliness and Contamination Control Group monitored the beamline cleanliness and the Assurances Office made sure integrated safety management was fully embraced through the timeline of activities.

Recently, NIF introduced the Integrated Product Team (IPT) concept to the organization. Brian Felker is the IPT leader for the amplifier system. His job is to coordinate and manage everything required to bring the amplifiers together: utilities, amplifier beam line, LRU, laser glass, and the amplifier assembly team.

"The IPT approach really paid off during this test because so many interfaces were involved — Brian did a terrific job managing them," Bonanno said.

The laser bay-bottom loading delivery system was used to install the amplifier slab LRU. It consists of two components, the bottom-loading canister and the laser bay transporter. The LRU is carried inside the clean environment of the canister. The canister is carried from the optics assembly building (OAB) to the laser bay using the laser bay transporter. The laser bay transporter is an automated guided vehicle that will eventually move automatically to 530 different parking locations in the laser bay. This delivery system required three years of software development, 14,000 lines of code, close to 3,000 point-to-point connections, 150 monitored control points, 11 cameras, and an automated optical alignment system.

It took four years for AIR's OAB special equipment group – engineers, designers and technicians – to develop and build the equipment used to clean and assemble the LRU used in this test: optic insertion devices, amplifier LRU assembly stands, slab LRU insertion carrier, bottom-loading vertical lifts, the OAB transporter, mechanical cleaners, and docking ports.

"We're working very well with Jacobs and the trades," Moses said.

"Jacobs did a great job getting the beamline ready for us," Bonanno said, "and clearing the way for us to get in to insert the LRU." Also, to minimize the AIR team's impact on Jacobs' other construction efforts, they worked in the laser bay during the swing shift (after 5:30 p.m.) for several weeks leading up to the actual test.

"This test broke the ice, " Bonanno said. "We discovered what it took to get an LRU in the beamline." The steady hand of lead engineer for AIR's Transport and Handling Group, Steve Yakuma, manually drove the transporter in the laser bay (target sensors for automated operation have not yet been installed) and throughout the procedure to dock the canister with the main amplifier. The transporter has less than one-inch clearance as it turns corners and comes in under the main amplifier.

Inserting an LRU into the beamline forced the team to deal with a lot of issues: cleanliness, safety, off-normal conditions (e.g., what do you do if the LRU gets stuck).

"We took a very rigorous approach to preparing for this test," Bonanno said. "We wanted to be sure we had considered and mitigated all the technical risks. So, we planned it thoroughly."

Three phases of the test

There were three phases to inserting the LRU into the beamline: docking, cover removal and bottom loading the amplifier slab canister into the main amplifier.

On the evening of Sept. 5, the laser bay transporter Defiant moved under the main amplifier and docked for the first time, physically engaging the canister with the beamline, but not inserting the LRU into the beamline.

During the week of Sept. 17, the team performed "cover removal" simulations to make sure that every part of the sequence worked. "This requires us to understand all the details of removing the beamline covers," Bonanno said.

Prior to starting the test on Sept. 26, amplifier group technicians manually removed the covers and swiped the inside of the beamline for cleanliness. They activated the beam purge system, flowing clean dry air through the beamline. "Cleanliness results on the LRU before and after were virtually unchanged," Bonanno said. "The LRU came out very clean, less than level 50 on the glass."

On Wednesday night, Sept. 26, after the team carbo-loaded on a spaghetti dinner prepared by Yakuma, they went out and successfully inserted and removed the LRU into and out of Cluster 3, Bundle 34 of the main amplifier.

The process of moving the LRU from the OAB to the laser bay took a total of five and a half hours. This early test has changed the group's focus from cleanliness, because they've demonstrated they can do it cleanly, to mechanical, physical and alignment items that need to be worked through.

In addition, conducting this LRU insertion and removal test early "gives us confidence that if we plan, coordinate, and work together well, we can do more in that facility than we originally planned," Bonanno said.

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