



ON TARGET

THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY • A DEPARTMENT OF ENERGY FACILITY

PAC21 reviews

experiment proposals; recommends use of limited beam time

Laser group meets,

reviews FEL run, experiment data, machine upgrade

President Bush

nominates Ray Orbach as next director of DOE Office of Science

New JAG committee

named; annual T-shirt contest underway

DOE Ops Review

Committee describes Lab as efficient; evaluates performance, operations cost

The Department of Energy's Operations Review of JLab ended Jan. 24 with the 15-member committee describing Lab operations as "on target." They commended Lab management and complimented the efficiency levels in many areas of the Lab.

"You are running a lean, mean operation," commented Don Geesaman, from Argonne National Lab and Ops Review physics and experimental subcommittee chair. "With your current level of resources you are running efficiently and quite close to being optimized for the most productive program possible. We commend you for the physics you are producing."

The DOE mandate for the review was to evaluate the Lab's current performance and operations cost, and to determine the funding needed to effectively support the Lab's research mission. To accomplish this the committee systematically examined all Lab activities supported by the [DOE] Nuclear Physics program, to determine the real cost (especially manpower) being incurred by Nuclear Physics for each activity. The committee, made up of senior researchers and managers from other DOE labs and major research universities, was also asked to provide DOE input on whether these activities are required and in the best interest of the Nuclear Physics program, and to explore options of reducing funding and any associated impacts.

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After the closeout meeting, Jefferson Lab Director Christoph Leemann thanked the Ops Review team for their very thorough work.

Review team, Lab management recognize funding challenges...

Continued from page 1

The committee concurred that the Lab is currently being run very efficiently and producing highly rated science with the Lab's current resources. They voiced agreement with the Lab's concern over the growing maintenance costs of the aging Continuous Electron Beam Accelerator — a significant issue that Lab leadership and managers briefed the committee on. The committee noted their agreement with the Nuclear Science Advisory Committee's (NSAC) opinion that the 12 GeV upgrade is vital to the Lab's capabilities and to the nation's basic research program. They believe Lab staffing is currently lean and that if Nuclear Physics funding in the out-years is not increased so that necessary skilled labor can be added in support of the upgrade, the Lab would be seriously challenged to re-examine priorities and skill mix.

In their findings, the committee noted that JLab's current level of funding would not sustain physics operations at its current level. They pointed out that as work for others (SNS and FEL upgrade) decreases over the next three fiscal years, the adverse funding situation becomes even more compounded. "Without compensation for this steady decrease, the Lab predicts, and the committee generally agrees, that operations might need to be reduced to approximately 25 weeks with reduced energy, and the staffing plus maintenance issues will become more acute," they noted at the closeout meeting.

They suggested some re-organization activities to more effectively use personnel, development of a long-term, proactive accelerator maintenance schedule and a strategy to balance short-term operational needs with long-term maintenance. The Lab had proposed two levels of significantly increased funding (+\$8.2M and +\$14.6M) resulting in significant benefits but the committee asked Lab leadership to break down these large increases in funding and concomitant scope into smaller segments by cost



Anne-Marie Valente, Accelerator Division, discusses cavity work going on in one of the Test Lab clean rooms with members of the Ops Review team.

and priority. The committee felt that small, high priority, specific funding requests may have a better chance of receiving Nuclear Physics funding than large funding requests.

The committee endorsed the Accelerator Division's mission, including the 12 GeV upgrade and core competencies; and they felt the current budget breakdown for operations, availability improvements, increased capabilities, and research and development was appropriate. They feel the Accelerator Division is comparable to other accelerators operating with lean staffs.

"JLab operates the accelerator very well, and it benefits from the additional funding it receives for construction of the Spallation Neutron Source, and the Free-Electron Laser upgrade projects," noted Rod Gerig, from ANL and chair of the Ops Review accelerator operations subcommittee. "The accelerator community — the entire world — benefits from the unique capabilities of JLab's Superconducting Radiofrequency facility."

The Lab's Environmental, Health & Safety and the computer center

functions received several compliments from the committee. The committee noted that the Lab has an efficient and effective administrative program and a mature, integrated and cost-effective safety program that compares favorably with other DOE facilities.

Lab management is considering the committee's recommendations. A similar review took place Feb. 5-7 at Brookhaven National Lab's Relativistic Heavy Ion Collider (RHIC). The results from these two reviews will be used by DOE in future funding decisions.

Dennis Kovar, director of DOE's Office of Science, Nuclear Physics Division, thanked the committee and the Lab for the hard work put forth in conducting the operational review. "The information gathered during this review is important in helping us make decisions and justifying them," he said. "The report meets our (DOE's) needs and advances the case for meeting your (JLab's) needs."

Jefferson Lab went through a DOE operational review during March 1992, and a medium energy review in 1996.

PAC21

Committee recommends 8 of 16 experiment proposals

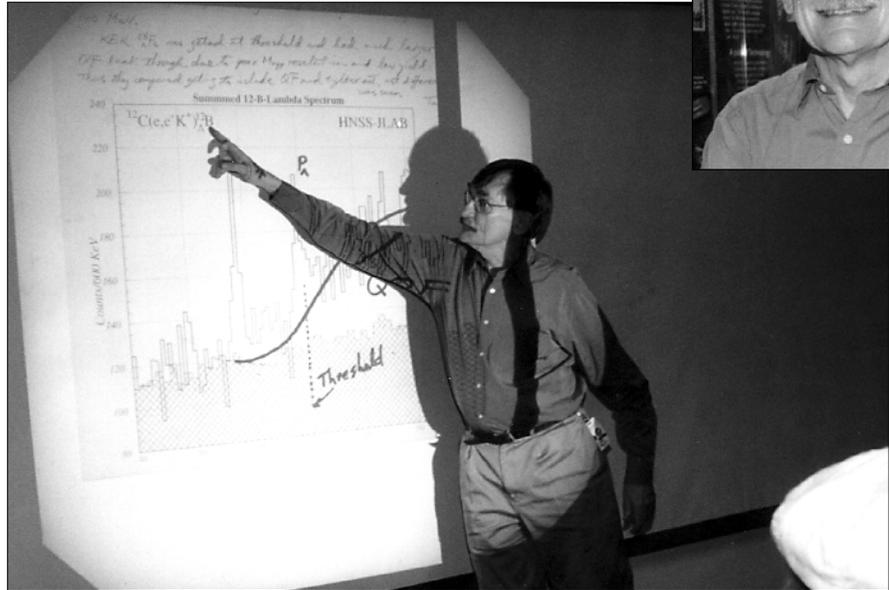
With four hectic days behind them, the JLab Program Advisory Committee completed its 21st meeting late on the afternoon of Jan. 18. At the closeout session with Lab leadership, PAC21 recommended eight experiments to be conducted at the Lab, out of 16 proposals.

The 13-member committee of international physicists, representing institutions from the U.S. and abroad, spent their time at the Lab reviewing and evaluating the 16 proposals and four letters of intent. After evaluating the science proposed in each of the experiments in the context of the Lab's restricted running schedule, the committee recommended that only half of those experiments be added to the Lab's schedule.

"This was a stimulating meeting," said Program Advisory Committee Chair Peter Barnes, Los Alamos National Lab, as he began the closeout session. "Some provocative ideas were presented and proposed, which brought on a lot of lively discussion."

"Many of the proposals going through the process were very impressive. While evaluating the submissions, we were delighted to see the physics program here expanding and deepening. New questions are being presented — areas that weren't initially considered when the accelerator and the halls were being planned and built. It is great to see the Lab being used in ways that weren't initially obvious."

The charge of the PAC is to review new proposals, as well as any extensions or updates to previously approved proposals, and provide advice on their scientific merit, technical feasibility and resource requirements. Each proposal, extension or update receives one of four recommendations from the committee: approval, conditional approval (pending clarification of special issues), deferral, or rejection.



Program Advisory Committee Chair Peter Barnes leads a discussion during a PAC21 session.

In addition, they provide a scientific rating and suggested beam-time allocation (based on anticipated beam availability) for all proposals recommended for approval. They also provide comments on letters-of-intent, and offer input on the Hall running schedules.

Of the nine proposals to use Hall A, three were recommended for approval. Both experiments proposed for Hall B received the PAC's recommendation; and of the five experiments proposed for Hall C, three were recommended for approval.

The committee said their decisions were difficult, and if additional beam time would have been available, there were a couple of additional proposals that they would have approved. (A lot of things were close, they noted.)

PAC member Shelley Page, University of Manitoba, who rotated off the committee after this meeting, suggested looking closely at the pro-

posal submission format to determine if requesting a detailed breakdown of beam time with each proposal could help in analyzing proposals and in optimizing the use of beam time and the halls.

At the end of the closeout, Lab leadership thanked the committee for its time, effort and expertise. "You are crucial to the success of the Lab. We rely on your fair, honest, forthright judgment," said Larry Cardman, Physics Division associate director. "Your integrity and scientific judgment are responsible for making our physics program better."

PAC members serve over a period of five PAC meetings (about 2 1/2 years). By early February the PAC21 report and an updated listing of all approved experiments should be posted at www.jlab.org/exp_prog/PACpage/PAC21/PACinfo.html.

LPC meets

Group reviews FEL run, plans for upgraded machine

Jefferson Lab's Laser Processing Consortium held its 13th meeting Jan. 17-18. "This was the largest gathering ever," reports Fred Dylla, Free-Electron Laser program manager, "with 122 attendees representing a mix of industries, universities and national laboratories."

An important point of the meeting was presenting the LPC with a recap of the 2 1/2-year run of Jefferson Lab's Infrared "IR Demo" Free-Electron Laser. The machine began operating in 1999 and completed its final run Nov. 18, 2001. Attendees heard about experiments using the FEL during its last three runs, which were conducted last year.

LPC members also discussed experiment proposals for the upgraded Infrared FEL, which should be completed around year's end and be ready

to run experiments in early 2003, according to Dylla. "We're urging users to prepare their experimental equipment now while we're upgrading the machine. There's already a great deal of interest in the new machine."

The agenda also included discussions covering new areas of science with light, to encourage thought and discussion of new applications.

Several related meetings occurred in conjunction with the LPC. The FEL Program Advisory Committee considered several experimental proposals. The Industrial Advisory Board also met to review the current understanding of use of the FEL for a number of industrial processes, including pulsed laser deposition and microfabrication.

Nearly 30 students participated in a poster session focusing on the science and engineering of laser interaction with

matter. The poster session was a collaborative effort of Norfolk State University, the University of Virginia, and JLab as part of the Integrative Graduate Education and Research Training (IGERT) program, which is funded by the National Science Foundation.

"The meeting was very informative and worthwhile," Dylla noted "It was a great way to talk about experiments, present ideas, discuss application possibilities and make valuable contacts."

"We're very grateful for the Lab's support in holding the meeting and to the City of Newport News Industrial Development Authority and the Peninsula Alliance for Economic Development for hosting the social portions of the meeting," he said.



Nearly 30 IGERT program graduate students participated in a poster session held during the LPC. Students, Lab staff and LPC participants attended the viewing.

Jim Boyce, from the Accelerator Division's Office of Technology Transfer, discusses the LPC agenda with Kinney Kim (left), a member of the North Carolina Central University Physics Department.





Ron Sundelin Retires

JLab staff and colleagues from across the country gathered in CEBAF Center on Dec. 17, 2001, to recognize Ron Sundelin for his significant contributions to the success of Jefferson Lab and to wish him well as he prepared to retire. The associate director led the contingent of Superconducting Radiofrequency experts who migrated to Newport News from Cornell University in the mid-1980s, when the Lab adopted SRF technology for building the Continuous Electron Beam Accelerator. More recently he directed the Lab's Office of Technical Performance. His retirement became effective Jan. 2; and Ron is taking up astrophysics.

DOE update

Orbach nominated as Office of Science director

President George W. Bush recently announced his decision to nominate Raymond L. Orbach, chancellor of the University of California, Riverside, as the new director of the Department of Energy Office of Science.

Orbach will remain at UCR pending confirmation by the U.S. Senate. Upon confirmation, he will leave the campus he has headed for 9 1/2 years.

The Office of Science is an agency within the Department of Energy exercising oversight of national laboratories, funding billions of dollars in university research, and helping to set the U.S. scientific agenda. As director, Orbach will manage an organization that is the third largest federal sponsor of basic research in the United States and is viewed as one of the premier science organizations in the world.

The office's budget of roughly \$3 billion funds programs in high energy and nuclear physics, basic energy sciences, magnetic fusion energy, biological and environmental research, and computational science. Formerly known as the Office of Energy Research, the office also provides management oversight of the Chicago and Oak Ridge operations offices, the Berkeley and Stanford site offices, and the 10 DOE

non-weapons laboratories, including Jefferson Lab.

As DOE's new director for the Office of Science, he will replace interim director James F. Decker, also a physicist, who was named to the interim position upon the inauguration of President Bush on Jan. 20, 2001. Decker has been with the Office of Science since 1985.

"This is an extraordinary opportunity to help my country achieve at the highest scientific levels. I am gratified by President Bush's trust and I am committed with all of my heart to his aggressive program furthering the nation's scientific endeavors," Orbach said.

"Ray Orbach is absolutely the best person for this job. It is a perfect fit for his leadership talent and scientific knowledge," said UC President Richard C. Atkinson.

An internationally recognized scientist and scholar, Orbach had come to UCR from UCLA where he had served for 10 years as provost of the 24,000-student College of Letters and Science. He joined the University of California in 1963 as an associate professor and became a full professor three years later.

Prior to UCLA, he was a National Science Foundation postdoctoral fellow at Oxford University from 1960 to 1961



and an assistant professor of applied physics at Harvard University from 1961 to 1963. Orbach holds a Bachelor of Science degree from Cal Tech in physics and a PhD. in physics from UC Berkeley where he was elected to Phi Beta Kappa. Orbach has held visiting professorships at institutions around the world, and has served on numerous professional, scientific, and civic boards. He is the author of more than 240 articles in scientific publications.

JAG update

New committee seeks additional volunteers, plans event calendar

A new year has begun and with it a new Jefferson Lab Activity Group has formed. The committee is eager to begin planning this year's events and activities, according to the new JAG chair, Dave Williams.

Seven individuals from across the Lab are on the 2002 JAG committee. The JAG is made up of volunteers, who serve one- or two-year terms on the committee. "Over the next month or so, I would like to see the JAG grow to 11 or 12 members," Williams comments. "More people on the committee allows us to keep taskings manageable, and provides us with more viewpoints and better ideas. We function best with 10-12 people on board."

"Individuals interested in becoming active JAG members," Williams continues, "should talk with their supervisor and call me with any questions. Being a JAG member allows you to meet and work with people from across the site. We plan and organize a variety of recreational events and activities enjoyed by everyone at the Lab: co-workers, family members, users, contractors and ourselves. It's a lot of fun planning these events."

"We haven't set an events calendar for this year, yet. The only event being

2002 JAG Committee

<u>Member</u>	<u>Area</u>	<u>MS</u>	<u>Ext.</u>
Dave Williams, chair,	ARC	5A	7183
John Heckman, co-chair	ARC	34A	6251
Lee Ann Sironen, secretary	CC Upper	12D	7527
Dave Kausch, treasurer	VARC	28G	7674
J. T. Kelley	ARC	7A	7702
Jessica Ledbetter	CC Lower	12B	7250
Diane Sarrazin	MCC	85A	5055

planned at this point is the annual Run-A-Round, with its T-shirt design contest," Williams notes. "As many of you know, we have less money available this year. We surveyed the Lab population electronically during January to determine which events to keep. We'll be cutting back from six JAG-sponsored events to four."

The JAG met Jan. 29 to review the survey results, determine which events to sponsor this year, and start developing the budget for them. "We'll also look over the many suggestions and ideas that have been submitted during the survey," Williams adds. "In addition to the bigger events, we hope to promote activities or

smaller events that won't cost any money. We'll get a schedule of events out as soon as we have one."

While the JAG plans and organizes the Lab's recreational events, many volunteers are needed to make each one a success. "We'll continue using Web sign-up for volunteers [started by last year's JAG]," Williams says. "It's convenient, quick and streamlines the volunteer process. If every staff member would volunteer just one-hour-each for two events, we'd never have to worry about canceling an event due to a lack of volunteers. Part of enjoying these events is supporting them."

Join the contest!

JAG seeks design entries for Run-A-Round T-shirt

The race is on to create the winning design for Jefferson Lab's 2002 T-shirt, announces Dave Williams, Jefferson Lab Activities Group chair.

Entries will be accepted through Feb. 22. "All designs will be put on the JAG web page and Lab-wide electronic voting to select the winning design will begin March 4 and run through March 15 (one vote per person).

"The Lab's annual T-shirts go back to 1986. We've had some great ideas in the past and we're looking for lots of new ideas for 2002," Williams says.

"We've got a lot of really incredible stuff going on at the Lab this year, which should generate great design ideas! Employees, users, even contractors may submit designs. There are only a few rules to follow."

All entries must be printed in color on 8 1/2"x11" paper. Each submission must include a front (pocket size) and back design. The words "Jefferson Lab", "DOE", "SURA", and "2002" must be incorporated into the design. All entries must include the entrant's name, division and telephone number. Designs should be submitted by 5 p.m. Feb. 22

to Dave Williams, ARC, rm. 527, ext. 7183; or JAG member Jessica Ledbetter, CEBAF Center, rm. L107, ext. 7250.

The winning design will be unveiled before the Lab's annual Run-A-Round, which is tentatively set for May. The winning designer receives a free T-shirt, \$25 worth of JAG Bucks, and recognition. If a team submits the winning design, each member will get a T-shirt and the team will receive \$35 JAG Bucks, according to Williams.

Visit www.jlab.org/jag and click on "Archives" to view previous winning designs.

Milestones for December 2001

Hello

Andrei Afanasev, Hall B Staff Scientist, Physics Division

Mary Jo Bailey, Administrative Assistant, Director's Office

David Richards, Staff Scientist, Physics Division

Paul Vasilauskis, Accelerator Operator, Accelerator Division

Goodbye

Charles Sinclair, Deputy Director, Accelerator Division, retires

Jean Claude Denard, Diagnostics/Staff Engineer, Accelerator Division

Congratulations

Tommy Hiatt, Accelerator Division magnet measurement/project engineer, received his Master's Degree in Mechanical and Aerospace Engineering from the University of Virginia in December. Hiatt used the Lab's tuition assistance program to

complete his master's degree. For more information about TAP, contact the Training and Performance Office or visit the Web at www.jlab.org/div_dept/train/.

Kenneth Baggett, Accelerator Division survey & alignment group staff engineer, recently earned his Bachelor's Degree in Computer Science from Christopher Newport University. His degree was conferred during a Dec. 15 graduation ceremony. Baggett used the Lab's Job-Related Training program to complete his degree.

Samantha Albright, Employment Administrator, and Cheryl Knight, Compensation and Benefits Administrator, in the HR&S Department have earned certifications as Professionals in Human Resources (PHR). The certification, awarded by the Human Resource Certification Institute (HRCI), signifies that Albright and Knight possess the theoretical knowledge and practical experience in human resource management necessary to pass a rigorous examination demonstrating a mastery of the body of knowledge in the field. HRCI is the credentialing body for human

resource professionals and is affiliated with the Society for Human Resource Management (SHRM), the world's largest organization dedicated exclusively to the human resource profession. The Institute's purpose is to promote the establishment of professional standards and to recognize professionals who meet those standards.

Dozens prepare for Feb. 9 Science Bowl

The countdown is on to the Feb. 9 Regional Science Bowl being hosted by Jefferson Lab. "We've had a great volunteer turnout to support this event," says Jan Tyler, Science Education manager.

To help the more than 60 volunteers — scorekeepers, moderators, timekeepers, rules judges and the science team — prepare for their duties, the Science Education staff held several volunteer meeting/training sessions.

Volunteer information was passed out, an overview of the day's events were presented, and training was conducted at each session.

Update



Lab wins education award
Jan Tyler, Science Education program manager (left), and Cindy O'Hare, Procurement administrator, accepted a 2001 Virginia Career and Technical Education CREATING EXCELLENCE Award for Jefferson Lab. The Lab was nominated for the award by Menchville High School, Newport News, for offering students mentoring opportunities, field trips, and internship programs. O'Hare volunteered more than 60 hours in two classes, supporting a new program called Virtual Enterprise International. O'Hare left the Lab Jan. 25 to pursue a career in teaching. Good luck and best wishes, Cindy!

DMV-On-Wheels

Mobile customer service center provides quick convenient service

The Department of Motor Vehicle mobile customer service center is making monthly visits to Jefferson Lab throughout 2002, according to DMV officials.

Take advantage of the mobile service center for any number of your driving or vehicle needs, they urge. "Using it is very convenient and can be a real time saver," they point out.

Individuals may visit the mobile unit to:

- Take the driver's license written test
- Obtain an original driver's license
- Get a duplicate driver's license
- Renew their driver's license
- Get a copy of their driving record report
- Take the Commercial Driver's License written test
- Update driver information (address, name changes, etc.)
- Obtain photo identification cards

- Register, renew and title a vehicle
- Turn in license plates and vehicle registrations
- Obtain vehicle license plate decals

Individuals with other types of DMV-related questions are welcome to stop by the mobile customer service center for information.

The scheduled visit dates for 2002 are: February 25, March 25, April 22,

May 20, June 24, July 22, August 26, September 23, October 28, and November 25. The dates are on the fourth Mondays of each of the months, except May 20, which is the third Monday in May. No visit is scheduled for December.

On visit days, the DMV mobile unit sits in the ARC parking lot (behind the Forestry Building, #19) from 9 a.m.-4 p.m.

W-2 forms mailed no later than Jan. 31

Payroll Supervisor Stella Parker advises JLab staff that 2001 W-2 tax forms were mailed to individuals no later than Jan. 31. W-2 forms were mailed to the address shown on your direct deposit slip, she points out.

Anyone needing to update their mailing address should see Kisha Owens, Human Resources, rm. 40-A in the VARC to fill out a change-of-address form.

Blank federal and state W-4 withholding forms may be picked up at the VARC. Forms are located in the document holder by the door to Payroll staff member Sharon Hay's office, rm. 18. As a reminder, any employee claiming tax exempt status on their W-4 must complete a new form and submit it to the Payroll section, rm. 18 (Mail Stop 28B), no later than Feb. 15.

For more information contact Parker at ext. 7503 or Hay at ext. 7620.

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