LIA TODAY

The Official Newsletter of the Laser Institute of America
The professional society dedicated to fostering lasers, laser applications, and laser safety worldwide.

Volume 15, Number 2 **March/April 2007**

In The News...

President's FY2008 Budget Request for NIST

President George W. Bush's fiscal year (FY) 2008 budget proposal recently submitted to Congress for the Commerce Department's Technology Administration (TA) is $642.3 million, of which $640.7 million is for the Department's National Institute of Standards and Technology (NIST).

The budget request for NIST includes $594.4 million for NIST's core research and facilities programs. The President's request will implement key components of the American Competitiveness Initiative (ACI), which is designed to enhance the U.S.'s capacity to innovate. NIST's operating budget for fiscal year 2006 was about $930 million.

NIST appropriations provide $387.5 million for measurement and standards research in the NIST Laboratories; $7.3 million for the Baldrige National Quality Program (BNQP) to promote and recognize orga-

(Cont. on pg.14, see **In The News...**)

Make Laser Safety a Priority

by Stephen Lumbert

Laser safety awareness is something some of us take for granted. Warning stickers, signage, lockouts, and micro switch panic buttons delineate our workspaces with clearly defined safety zones. We take (or offer our employees) safety classes, provide or require safety equipment, and generally take safety very, very seriously.

However, many of the increasingly powerful industrial laser tools in use today employ infrared and ultraviolet laser beams that are not in the visible spectrum. The powerful beams of coherent light energy emanating from industrial lasers produce heat, creating an environment for burns while other heat-related accidents bear equal attention.

Lasers also require a very robust power supply for the laser beam to provide enough energy to affect any work object. This involves using high voltage transformers and/or capacitor banks. Any time high voltage is involved, the potential for injury increases.

Laser Hazards

Although a summary of reported laser accidents in the United States and their causes from 1964 to 1992, as reported by the Max-Planck-Institute for Medical Research[1], claim that the majority of injuries involved the eye and occur during alignment procedures, or because the protective eyewear was either inappropriate or not used, direct and indirect ocular exposure to laser radiation is only one aspect of laser safety in the workplace. For example, when a beam of laser energy interacts with an object, whether

(Cont. on pg. 6, see **Safety**)

LIA Around the World

As it states in the mission statement, the Laser Institute of America (LIA) is the professional society dedicated to fostering lasers, laser applications and laser safety worldwide. And lately as well as in the future, conferences are taking LIA all over the world. LIA, the professional society that is the leading provider of technical information in the international laser industry, will be visiting Shanghai, Beijing, and its own hometown of Orlando, Fla.

Two other LIA conferences, ILSC® (International Laser Safety Conference) and ALAW (Automotive Laser Applications Workshop), were held in San Francisco, Calif. and Plymouth, Mich. respectively. And in 2006, LIA's Pacific International Conference on Applications of Lasers and Optics (PICALO) was held in Melbourne, Australia. All of this travel proves that LIA is committed to its international activities and conferences.

LIA Partners in Shanghai Conference

First off, LIA is pleased to announce it is a cooperating society for the 2nd International Conference on Laser Processes and Components (LPC), which was held March 21-22, 2007 in Shanghai, China. Additional LPC partners are Messe München International and Laser Zentrum Hannover e.V. in cooperation with the Laser Processing Committee of China Optical Society (LPC-COS). This two-day event will focus on laser processing technologies, laser components, and current developments and trends in laser technology.

(Cont. on pg. 8 see **Conferences**)

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LIA TODAY

The Official Newsletter of the Laser Institute of America

LIA TODAY is published bimonthly and strives to educate and inform laser professionals on laser safety and new trends related to laser technology. LIA members receive a free subscription to *LIA TODAY* and the *Journal of Laser Applications*® in addition to discounts on all LIA products and services.

The editors of *LIA TODAY* welcome input from their readers. Please submit news-related releases, articles of general interest and letters to the editor. Mail us at *LIA TODAY*, 13501 Ingenuity Drive, Suite 128, Orlando, FL 32826, fax 407.380.5588, or send material by e-mail to lia@laserinstitute.org.

If you are interested in affordable advertising space in this newsletter or a subscription, please contact Jim Naugle at 407.380.1553 or 1.800.34.LASER.

Laser Institute of America (LIA) is the professional society dedicated to fostering lasers, laser applications and laser safety worldwide. LIA is the secretariat and publisher of the ANSI Z136 series of laser safety standards, and is a leading provider of laser safety education.

LIA offers educational programs, conferences and symposia on the applications of lasers and electro-optics. LIA's annual International Congress on Applications of Lasers & Electro-Optics (ICALEO®) features the world's foremost meeting on laser materials processing. The biennial International Laser Safety Conference (ILSC®) covers all aspects of laser safety practice and hazard control.

If you would like more information about the LIA, call 407.380.1553, 1.800.34.LASER or visit our home on the Web: **www.laserinstitute.org**.

LIA's Calendar of Events

For more information contact LIA at 1.800.34.LASER or visit www.laserinstitute.org

Laser Safety Officer Training
May 7-9, 2007 • Indianapolis, IN
July 16-18, 2007 • Raleigh, NC
Aug. 6-8, 2007 • Albuquerque, NM
Oct. 29-31, 2007 • Orlando, FL
Dec. 3-5, 2007 • Miami, FL

Laser Safety Officer with Hazard Analysis
June 4-8, 2007 • Baltimore, MD
Sept. 17-21, 2007 • San Francisco, CA
Oct. 29-Nov. 2, 20007 • Orlando, FL

Medical Laser Safety Officer Training
May 18-19, 2007 • Atlanta, GA
Sept. 21-22, 2007 • San Francisco, CA
Nov. 9-10, 2007 • Raleigh, NC

Basics of Laser Safety
Oct. 11-12, 2007 • Memphis, TN

Industrial Laser Safety
May 1, 2007 • Rockford, IL
Aug. 16, 2007 • Sturbridge, MA
Nov. 8, 2007 • San Diego, CA

Advanced Concepts in Laser Safety
Sept. 24-26 • Rockville, MD

ALAW
Apr. 17-19, 2007 • Plymouth, MI

ICALEO® 2007
Oct. 29-Nov. 1 • Orlando, FL

For a complete list of LIA corporate members, visit our corporate directory online at www.laserinstitute.org.

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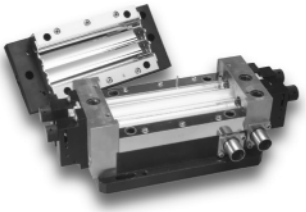

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President's Message

LIA President Bill Shiner

During one of our recent LIA executive committee meetings, the group discussed ways that we could provide more value to our corporate LIA members. From this discussion, an idea to develop a corporate members' Laser Application Resource Guide was developed. It was presented to the board of directors and approved.

We are now underway in putting together the guide with one page for each member company. This page will describe the company's capabilities, products, contacts, etc. It will not be an ad, but be informational on each member company.

The guide will be updated annually with an insertion fee charged yearly. Companies will be grouped in the appropriate sections. Example: research & development, laser manufacturers, laser safety, and so on. Users of the guide will be able to quickly find companies, researchers, and products that can respond to their requirements.

The guide will be distributed at the various trade shows, such as ALAW, ICALEO®, Photonics West, Munich 2007, as well as being available on the LIA website. It will bring measurable value to our corporate members and helpful guidance to users. I would like to thank each of the corporate members who signed up and helped make this a publication we can all be proud of.

Executive Director's Message

Exciting Times

LIA Executive Director
Peter Baker

These are exciting times for our society. As President Bill Shiner said, we are busy with the first edition of our Laser Application Resource Guide (which he modestly omitted to mention was his idea. Thanks, Bill).

Registration for our International Laser Safety Conference (ILSC®,) is very strong. This year features a new event, the Laser Safety Practical Applications Seminar, which will add even more value for the attendees.

Also in March, we will be a cooperating partner in the International Conference on Laser Processes and Components (LPC), which will be held in Shanghai as part of LASER World of Photonics China. LIA is partnering with Laser Zentrum Hannover, Laser Processing Committee of China Optical Society (LPC-COS), and Messe München International. Marketing Director Jim Naugle is attending the conference and we are excited that LIA will have a presence in China this month.

In April, we will be presenting the Automotive Laser Applications Workshop (ALAW) for the first time since we purchased it from its founder Frank DiPietro with our partners, the Fabricators & Manufacturers Associations, Intl. (FMA). We are pleased that Frank has agreed to chair this year's event and will cooperate with us in future years.

So, our society continues to change and grow to meet the needs of our members and carry out our mission to foster lasers, laser applications, and laser safety worldwide.

pbaker@laserinstitute.org

Safety , cont. from pg. 1

organic or inorganic, (such as skin, hair follicles, metal, or plastic) some of the working material vaporizes. This particulate matter, sometimes in the form of an invisible haze, then becomes airborne. These laser generated airborne contaminants (LGACs) are often ignored as a minor irritant or inconvenience, but in reality they pose a potentially serious health risk for the practitioner.

Examples of LGACs are the byproducts of laser cutting, burning, or welding of inorganic materials. These processes may cause the formation of many of the same metal oxides and noxious fumes produced during conventional welding processes. Some of these airborne particulates can be of an exotic nature such as cadmium oxide, tellurium and tellurium hexafluoride. A few will burn in the presence of oxygen, and most are of a toxic nature.

Additionally, there are over 600 potentially toxic gases and particulate matter released by the interaction of laser energy and organic substances. Some of these include benzene, formaldehyde, hydrogen cyanide, bioaerosols, dead and live cellular material, and even viruses[2].

Laser safety should play a paramount role in the operation of any facility using a laser.

The list of potential injuries, even death, that can be caused while working in an environment using laser tools is quite long, however we can break it down into some major categories:

- Eye Injuries
- Burns
- Shock
- Respiratory
- Physical Trauma

Staying Alert

Due to the inherent safety risks involved with laser use, the placement and configuration of peripheral equipment becomes a very important element of laser safety in the work environment. In order to achieve a safe laser workplace, a working knowledge of lasers and laser safety protocols is required. As new processes evolve, enter the mainstream, and bring with them new hazards, we must not take laser safety for granted and continue to hone our safety practices, procedures, and certifications. We must examine and re-examine our laboratories, factories, and medical facilities to ensure we meet or exceed acceptable standards (see above sidebar on ANSI standards). Here is a brief listing of some major areas of interest and concern regarding laser safety.

- Accessible Emission Limit (AEL)
- Maximum Permissible Exposure (MPE)
- Laser Hazard Classification Scheme
- Engineering, Administrative, and Procedural Control Measures
- Nominal Hazard Zone (NHZ)
- Laser Safety Officer (LSO)

These areas of concern might use somewhat unfamiliar nomenclature, but they encompass some of the most important aspects of laser safety when establishing, reviewing, or overhauling operating procedures, policies, and workplace design.

For example, of paramount importance is the LSO. The LSO must have both the authority and the responsibility for laser safety. Not everyone can be familiar with all the details involved with laser safety, safety standards, or knowledge and ability to evaluate and control laser hazards. Among the many responsibilities of the LSO are periodic audits of the engineering safety features and standard operating procedures. Additionally, the LSO assures adequate training of laser area personnel, recommends and approves appropriate protective equipment, approves the wording on area signs and equipment labels, and maintains any safety records that may be required by government regulation.

The laser safety officer investigates laser incidents and takes appropriate action when necessary. Furthermore, an LSO can suspend, restrict, or even terminate operations when controls are inadequate. Basically, the LSO is an integral part of the safety equation for industrial laser operations and must be properly and adequately trained in order to perform these essential safety duties.

Lasers are wonderful tools for improving productivity and reducing waste. As we find increasing applications for these tools, our need for vigilance will also grow. Safe operations mean better products, healthy workers, and steady profits.

There is more to laser safety than posting signs, or training en passant. Laser safety compliance issues and documentation are essential. The backbone of any safety program is the continuous effort of management and employees to follow established safety protocols, and are up-to-date on the latest standards. This can only be achieved by a strong support for training and education. ✱

Stephen Lumbert is a technical writer for the LIA TODAY.

[1] http://laser.mpimf-heidelberg.mpg.de/mpimf_e/laser_e_05_statistics.html
[2] DHHS (NIOSH) Publication No. 96-128

Training Solutions

The Laser Institute of America (LIA) offers a wide variety of training courses and certifications, covering all aspects of industrial laser safety and has had a strong commitment to laser safety training and education since 1968. Fulfilling its mission of fostering lasers, laser applications, and laser safety worldwide, LIA is the secretariat and publisher of the American National Standards Institute (ANSI) Z136 series of laser safety standards. These documents provide a thorough set of guidelines for implementing a safe laser program. The ANSI Z136 series is recognized by OSHA, and is the authoritative series of laser safety documents in the U.S.

LIA also offers a wide array of products and services to thousands of end-users. These include safety and applications publications, training videos, signs and labels, laser safety officer training, and conferences. For more information, visit www.laserinstitute.org.

Test Yourself

Do you know the basics?

1. What does the Nominal Hazard Zone (NHZ) represent?

- **A.** The focal point of a converging beam.
- **B.** The time it takes to reach safe exposure levels.
- **C.** The region within which the level of laser radiation exceeds the MPE.
- **D.** The region from within which it is safe to view the beam.

2. Hazardous exposure to diffusely reflected radiation is most likely to occur from which class of laser?

- **A.** Class 2
- **B.** Class 3a
- **C.** Class 3b
- **D.** Class 4

3. Which of the wavelengths of radiation are likely to cause Photokeratitis?

- **A.** Infrared A and Infrared B.
- **B.** Ultraviolet A and infrared.
- **C.** Ultraviolet C and Ultraviolet B.
- **D.** Visible and Ultraviolet A.

4. Retinal burns can be caused by which of the following laser wavelengths?

- **A.** Far infrared and ultraviolet.
- **B.** Visible and near infrared.
- **C.** Ultraviolet only.
- **D.** Far infrared only.

5. What is the last task you should perform after you have finished servicing the laser?

- **A.** Put away any tools.
- **B.** Inform the LSO.
- **C.** Reactivate all the safety features.
- **D.** Look directly into the beam.

Don't know as much as you thought you did? Don't get stressed – call the LIA! No matter what your current level of safety knowledge, we have the training and/or publications you need to pass with flying colors!

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(Answers: C, D, C, B, C)

BOARD , cont. from pg. 1

In conjunction with the LPC, the exhibition LASER. World of Photonics China will be held March 21-23, 2007, also in Shanghai. LASER. World of Photonics China is a tradeshow for the entire spectrum of photonics. Messe München International organizes this event as part of its "World of Photonics" network, which includes the world-leading tradeshows LASER. World of Photonics and the World of Photonics Congress in Munich, Germany.

LPC sessions will cover such topics as laser micro and macro processing, optical components, and laser systems and laser safety. All presentations will be translated simultaneously in English and Mandarin. During the conference, LIA will exhibit with LIA corporate member Laser Zentrum Hanover e.V.

As a cooperating society, LIA would like to invite all those in the laser industry to attend in order to explore the marketing opportunities in the photonics sector and especially the laser processing market in China. For more information, visit www.laserchina.de or www.laserinstitute.org/In_the_news/ICLPC.php.

ICALEO 2007 Adds Nanomanufacturing Conference

LIA's 26th International Congress on Applications of Lasers & Electro-Optics (ICALEO® 2007), will be held Oct. 29-Nov. 1, 2007 in Orlando, Fla. ICALEO® 2007 will include two conferences, the Laser Materials Processing Conference and the Laser Microprocessing Conference, as well as a Poster Presentation Gallery, the Laser Solutions Short Courses, and a Business Development Session. Furthermore, an exciting new conference has been added for 2007 devoted strictly to nanomanufacturing.

The Nanomanufacturing Conference will feature such notable topics as nanomanufacturing of biomedical devices, nanometrology by laser and optical methods, and nanosensors for brain-machine interfacing. Areas of special interest that will be addressed include education, information technology, nanoxerography, holograph and interferometry, nanopositioners, pulsed laser deposition, and much more.

The Laser Materials Processing Conference will cover topics such as aerospace, automotive, and laser safety; processes like rapid prototyping, surface modification, and cutting and drilling, and lasers including diode, hybrid, and advanced laser sources. Areas of special interest in the Laser Microprocessing Conference consist of applications in medical device and MEMS fabrication, processes such as laser ablation and ultrafast, and systems including picosecond and femtosecond lasers and UV/VUV and EUV sources.

Additionally, short courses will provide attendees a broad-based understanding of how practical applications of lasers are making an impact on manufacturing and provide resources for further information.

ICALEO® has a 25-year history as the premier conference for researchers and end-users to meet and discuss state-of-the-art laser technology and predictions for the future. For more information, visit www.icaleo.org or e-mail bcohen@laserinstitute.org.

PICALO 2008 Headed to Beijing

LIA is pleased to announce that its 3rd Pacific International Conference on Applications of Lasers and Optics (PICALO) will be held April 16-18, 2008 at the Capital Hotel in Beijing, China. PICALO will focus on the growth and application of lasers and optics in the Pacific region.

PICALO aims to bring together researchers, engineers, equipment suppliers and industry personnel to hear the latest developments and progress in lasers and applications and to share knowledge, experiences and visions. The conference's general chair is Minlin Zhong of Tsinghua University, Beijing.

PICALO will feature laser materials processing sessions, micro, nano and ultrafast fabrication sessions, a laser industry vendor reception, and plenty of networking opportunities. New for 2008 will be the International Enterprise Summit titled "Globalization: Opportunities & Challenges for Laser Businesses in China & the World." This summit will provide insight from industry experts on how to expand business in China. For details on PICALO 2008, visit www.laserinstitute.org/conferences.

Stay tuned to the next **LIA TODAY** for a recap of LIA's other conferences, ILSC® 2007 (International Laser Safety Conference) and ALAW (Automotive Laser Applications Workshop). ✱

LIA Seeking Nominations

The Laser Institute of America needs the help of its membership with nominations for officers for the year 2008 and board members for years 2008-2010, as well as for 2007 fellows and award recipients. Visit the LIA website at www.laserinstitute.org/nominations/2007 for complete details and nomination forms. You may submit your nominations online or send your suggestions to the LIA office via fax (407-380-5588) by April 15, 2007.

Officers/Board

All nominees on the ballot are required to be current members of the LIA. Some responsibilities include attendance at board meetings, support of LIA's courses, conferences, and publications, and encouragement of LIA membership.

Fellow Nominations

The highest level of membership in the LIA is the grade of fellow. The award recognizes members who have attained unusual professional distinction in the mission areas of laser science and technology, laser applications and/or laser safety, and have provided outstanding service to their field and LIA. Nomination packages must be completed and submitted to LIA by April 15, 2007 to allow review by the LIA Fellow Candidate Selection Group and the Nominations Committee.

Arthur L. Schawlow Award

The Schawlow Award recognizes individuals who have made distinguished contributions to applications of lasers in science, industry, education, and medicine.

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MEMBER PROFILE

Kentek Corporation

LIA corporate member Kentek Corporation was founded in 1983 by Mike Toepel in Pittsfield, NH, to provide laser safety products, components, and accessories to the laser industry. The company's market is broad and international and includes all laser end-users in all markets: medical, industrial, research, university, and military. The company is known worldwide as an important source for all laser safety products, both stock and customized.

Company Evolution

Industrial laser service and replacement parts for Raytheon lasers were the original products offered by Kentek. Shortly thereafter, Zap-It® laser alignment paper was introduced. This has become an industry standard product.

"Safety products, like eyewear, were added during the early years of Kentek's development when the company realized that these customer needs were not being met," explained President and General Manager Tom MacMullin.

Today, Kentek offers a full range of products. Kentek's staff is fully versed in laser safety requirements, and every customer is assigned to a Kentek account manager. Offices include the headquarters in Pittsfield as well as an Albuquerque sales location.

By Division

Kentek's Laser Safety Products Division provides filter glass, protective eyewear, laser containment systems, portable partitions, custom laser enclosures, interlock systems, viewing windows, educational courses, and warning signs to meet OSHA and ANSI regulations.

In its Components Division, Kentek designs and manufactures pump chambers, resonators, and custom laser cavity assemblies for use by OEMs, industrial, and research facilities. Kentek also provides direct OEM replacement parts for many flashlamp-pumped lasers and manufactures Class 1 and Class 4 laser work enclosures.

In the Laser Accessories Division, Kentek offers tools for laser alignment, including TRAP-IT™ beam dumps, a wide variety of power meters featuring the full line of OPHIR heads, displays, and accessories.

"In addition, we have specialty items such as View-It®, a ceramic laser sensitive disc for seeing the invisible laser beam, and ZAP-IT®," said MacMullin.

This diversification is key to Kentek's success.

"Our strength is that we don't rely on any one product line. We believe we have a significant presence in laser safety products, including eyewear, barriers, curtains, and windows. We are also an important company in the highly specialized product category of custom-built laser components including cavities and pump chambers," he said.

The company has significant internal product development capabilities and works very closely with key customers and supplier-partners to bring new product ideas to market, he explained.

Staying Steady

MacMullin has seen steady growth in all segments of the industry in the last several years. However, "our medical segments have grown slightly faster in recent years as we better understand these customers and introduce products needed by this market," he added.

"Many of our customers are looking for that "one-stop shop," particularly our laser safety customers. Our response has been to expand our product offerings in this area: additional filter offerings and more style selections in eyewear, steady product improvements in our EverGuard® barrier product line including glow-in-the-dark feet, overnight delivery service for laser safety curtains, and same-day cutting and shipping of laser viewing acrylic products," he said.

"Our mission is to provide excellence in customer service. Kentek staff is trained to deliver the best products, outstanding quality, and superior customer service." ✱

Involved In LIA

Kentek became a corporate member of LIA more than 20 years ago and has long seen great value in its membership. The company supports all LIA events including the ILSC® and ICALEO® conferences. MacMullin has served on the LIA Board of Directors and ANSI Z136 committees. He has also written articles for LIA as well as other industry publications.

"We belong to the LIA because of our desire to support industry initiatives, including development and publishing of standards. Also, LIA provides visibility of Kentek to new customers, and provides plenty of forums for promotion of Kentek products and capabilities," said MacMullin.

For more information about Kentek Corporation, visit www.kentek.com.

Akira Matsunawa

January 5, 2007

Dear Peter, ICALEO attendees, and staff of the Laser Institute of America,

A happy New Year! Wishing you all the happiness and success in the year 2007.

I would like to thank you all for a splendid book you sent me commemorating Aki. I was very much moved by your concern and generosity and just could not find words to show my appreciation. The whole book meant so much to me at the most difficult time in my life, and you certainly gave me the courage to keep on going without Aki in the life ahead. Thank you indeed for your kindness.

At the beginning of December, the Emperor of Japan and Japanese Government conferred a decoration and the title (peerage) on Aki for his outstanding contribution in the field of laser science at home and abroad, and his devotion to education. The title is Juu 4 and the decoration is the Zuihousou, with all dated on Sept. 20, 2006, Aki's last day.

I received it on Aki's behalf, your behalf, ICALEO attendees, and the Laser Institute of America. Without your support and cooperation, Aki could not achieve what he aspired for in the field of laser science. I thought this great honor should go to you as well and be shared by you all. Only regret, Aki could not attend the solemn ceremony at the Imperial Palace himself.

Enclosed please find a picture of the award and the decoration. Thank you again for the memorial book and your constant encouragement. May you all have good health and great success in the New Year.

Sincerely,

Junko Matsunawa

Chapter Corner

LIA encourages all LIA members in the surrounding areas of these chapters to join the chapter and support its efforts to promote the laser industry on a regional level.
For more information or to volunteer to help, visit www.laserinstitute.org/membership/chapters.

Northeast Chapter

The last meeting of the Northeast Regional Chapter of the LIA was held Wednesday, March 14 at the Marriott Courtyard in Nashua, NH. This meeting featured special guest speaker Ronald Mallett, professor of Theoretical Physics at the University of Connecticut. Professor Mallett has been active in the field of theoretical physics for many years, and is a noted lecturer and author on the subject of time travel. He is the author of an elegant book on the subject called Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality. He is also actively involved in researching circulating, high power laser light and its potential applications to time travel.

We will have a full recap in the next LIA TODAY. For more information on the Northeast Chapter, visit www.laserinstitute.org/membership/chapters/new_england/.

Great Lakes Chapter

The last event of the Great Lakes Chapter was held Jan. 16 in Ann Arbor, Mich. Titled "Industry Snapshot Night," the evening was jointly hosted with the Ann Arbor Chapter of the Optical Society of America (OSA). The purpose of the Industry Snapshot Night was to bring together people from the many high-tech, optics-related industries in southeast Michigan in order to foster discussion, innovation, collaboration, and of course to have fun. Area companies set up tabletop displays during the networking session.

New 2007 Great Lakes Chapter committee members are: Chair Eric Stiles, Laser Division Manager of Fraunhofer Center for Coatings and Laser Applications; Secretary Mon Myaing of Clark MXR; Advisor Mike Klos of IPG Photonics, Midwest Operations, and Advisor Michelle Stock of IMRA.

For more information, please visit www.laserinstitute.org/membership/chapters/great_lakes/.

Northern CA Chapter

The Northern CA Chapter includes the state of California, but is not limited to just that state. The goal of the chapter is to create a forum for networking with laser professionals in Northern California. Bimonthly meetings will be held throughout the area with a guest speaker or company tour as part of each one. For more chapter-specific information, visit www.laserinstitute.org/membership/Chapters/West/.

Welcome New LIA Members

Corporate Members

- ABB Inc., Westerville, OH
- Advanced Laser Solutions of NY, LLC, Holland Patent, NY
- Liekki Corporation, Lohja, Finland
- Naval Medical Center, San Diego, CA
- OceanOptics, Inc., Dunedin, FL
- Synrad Incorporated, Mukilteo, WA

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Lorraine Blais, La Pocatieve, QC, CAN
Joseph Vincelli, Montreal, QC, CAN
John Milroy, Galway, Ireland
Ernst Ramseier, Heerbrugg, Switzerland
James Stewart, Sittingbourne, Kent, U.K.

To: CREOL Industrial Affiliates

The program announcement below may be of interest to your company. And if so, and the project would benefit from university support, there are likely faculty at CREOL and/or USF who would like to support your proposal.

NIST Announces New Support Program For High-Risk Industrial R&D
The National Institute of Standards and Technology (NIST) announced a new competition for cost-shared awards to support high-risk industrial R&D. The Advanced Technology Program (ATP) provides partial support to single companies or to industry-led joint ventures to accelerate the development of innovative technologies for broad national benefit through partnership with the private sector. ATP projects are selected in a competitive, peer-reviewed process. Although the formal announcement will not appear until later this spring, those wishing to join the ATP mailing list (who will receive a competition announcement and the ATP Proposal Preparation Kit) should visit www.atp.nist.gov/atp/atpform.htm. Also see http://www.atp.nist.gov/.

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In The News, cont. from pg. 1

nizational performance excellence; $104.6 million for the Hollings Manufacturing Extension Partnership (MEP), an outreach program providing assistance to small and mid-sized manufacturers in all 50 states; and $79 million for the Advanced Technology Program (ATP). In addition, NIST expects to receive about $47.2 million in fees for reimbursable services such as calibrations, measurement standards, and laboratory accreditation.

InterFab Research Facility Opens

An interdisciplinary fabrication facility at the University of Southampton, UK, will enable research teams to carry out new areas of optics related research, reported the Feb. 2, 2007 issue of *Optics.org*. The 180 m^2 InterFab clean room, which will be used by researchers from the Optoelectronics Research Centre (ORC) and the School of Electronics and Computer Science (ECS), has been specially designed for research on photonic circuits and microsystems. The new research facility also provides laboratories for biophotonics, special glass fabrication, and optical fiber drawing. InterFab will allow PhD students and postdoctoral researchers to continue hands-on research and rapid prototyping. ✱

LIA Announces

LIA Cooperates With OP-TEC

A consortium of two-year colleges, high schools, universities, national laboratories, industry partners, and professional societies is creating OP-TEC: the National Center for Optics and Photonics Education. Funded by the National Science Foundation's Advanced Technological Education (ATE) program, the participating entities have committed to join forces in creating a secondary-to-postsecondary "pipeline" of highly qualified and strongly motivated students and empowering community colleges to meet the urgent need for technicians in optics and photonics. LIA will be supporting this effort. For more information visit http://www.op-tec.org/.

JLA Adopts e-First Publishing Model

Beginning with the February 2007 issue, the *Journal of Laser Applications®* (JLA) will post each accepted paper online as soon as it is copy edited, composed, and approved for publication. This process, known as e-First publishing, will speed online publication of some papers by up to three months.

"Rapid publication is becoming increasingly important in research, and e-first provides authors and readers the fastest possible delivery of accepted papers," said Peter Baker, executive director of LIA. "Now articles in JLA will be published quickly and with a high degree of functionality, incorporating the many online features enabled by the Scitation service."

Scitation is the online platform owned and operated by the American Institute of Physics, which hosts JLA.

In addition to accelerated publication times, e-First publication makes all display formats available immediately, including full-text HTML. Print publication will follow the completion of the online volume.

LIA Becomes Licensed Provider of Nursing Contact Hours

LIA is pleased to announce it is now licensed by the California Board of Registered Nursing as a Continuing Education Provider of contact hours. This will serve as a benefit to all of the nurses that take LIA's Medical Laser Safety Officer courses or request the LIA provide in-service training on laser safety.

Registered nurses are required to document completion of continuing education courses as a way of supporting their continued competency to practice. The requirement is that RNs complete a minimum number of contact hours every two years in subjects relevant to the practice of nursing. Courses must be taken from providers approved by a state board of registered nursing.

LIA already offers a complete line of laser safety training courses for personnel in research, industrial, and medical laser facilities. Now as a provider of contact hours, LIA has greatly enhanced the value of all its products. For more information call 800.34.LASER/407.380.1553 or visit www.laserinstitute.org. ✱

Journal of Laser Applications® Update

The *Journal of Laser Applications®* offers the latest refereed papers by leading researchers in the laser community. The May 2007 issue includes papers from materials processing, biomedical, and safety. Look for the online version at www.laserinstitute.org/publications/jla/. To view the journal online, please make sure your membership is current. Starting with the February 2007 issue, online figures will be in color. In addition, articles will now be posted online as the production cycle is completed ensuring timely publication. These articles will be fully citable.

The JLA is published four times a year by the Laser Institute of America in February, May, August and November. It is sent to all LIA members as a member benefit. For nonmembers of LIA, call the American Institute of Physics at 1.800. 344.6902 for subscription information.

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