



LIA TODAY

The Official Newsletter of the Laser Institute of America

The professional society dedicated to fostering lasers, laser applications, and laser safety worldwide.

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In The News...



Time Travel?

Ronald Mallett, a University of Connecticut physics professor, thinks time travel is possible – and he’s designed an experiment that could do it, reports the May 1, 2006 issue of *Newsweek*. Basically, he wants to “swirl” empty space the way you would swirl coffee in a cup, using a laser as the stirrer. Because space and time are more or less the same, swirling empty space could also swirl time. Mallett would then drop subatomic particles into his roiling cup of space/time and see if they’re hurtled a few nanoseconds into the future, said the article. The idea is based on Einstein’s theories of relativity claims Mallett.

But Robert Ehrlich, a physicist at George Mason University, says the idea of time travel is “not disreputable” but that Mallett’s plan has a major flaw: his device is small enough to sit on a desktop. While it may very well work, the effect would be “so small that it

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

ICALEO® Celebrates 25 Years

by Jack Dyer, Contributing Editor*

If you are younger than age 50, you may not know or have paid attention to, the truly amazing pioneering research and actions that enabled your laser technology career. Follow then the words of John (Jack) F. Ready, longtime Laser Institute of America member and author, at the first International Laser Processing Conference held in Anaheim, Calif. in November 1981.

Laser Processing “The First 20 Years”

“The earliest laser workers in the 1960s found that a small ruby laser could easily melt and vaporize small amounts of metal. Many fundamental investigations were conducted to determine the effects of high power laser radiation on absorbing surfaces. This paper will review the relevant physical phenomena. By

the late 1960s, laser development had progressed to the point that lasers became practical production tools. For some applications, like resistor trimming and hole drilling in ceramics, laser processing has become the method of choice. For other applications, like cutting of cloth and of metals, laser processing offers a viable and economically competitive alternative to conventional techniques.

“By the early 1970s, advances in the power



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

The Importance of Aesthetic Education – Rules & Regulations

by John Hoopman, CMLSO

The American National Standards Institute (ANSI) Z136 family of documents continues to serve as the core for all other professional and regulatory standards across the United States. They reflect the prudent conscience of management especially in the medical setting. However, the old saying of ‘leading the horse to water’ has never proven truer. The practical application of the *ANSI Z136.3 Safe Use of Lasers in Health Care Facilities*, the resultant documents, and implementation for new aesthetic/cosmetic procedures has never been more sporadic or disjointed.

Let’s take a moment to go back to the core of laser use and regulation. The original

Z136.3 was developed in a world where medical lasers were used almost exclusively, with the exception of ophthalmics, in a hospital operating room. In the hospital setting laser regulation and use followed the tried and true policy relating to Standard of Care.

As the lasers left the main OR and ventured into the day surgery arena the level and standard of care, education, record-keeping and implementation had to be the same. JCAHO and other organizations monitored just such things in their review. Even as the lasers found their way into the new free-standing surgery centers of the early 1990s the standard and the

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



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The Official Newsletter of the Laser Institute of America

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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

July 17-19 • Milton (Toronto) ON, Canada
Aug. 7-9 • Denver, CO
Dec. 4-6 • Orlando, FL

Laser Safety Officer with Hazard Analysis

Sept. 18-22 • San Francisco, CA
Oct. 30-Nov. 3 • Scottsdale, AZ
Feb. 5-9, 2007 • Orlando, FL
Mar. 26-30, 2007 • San Diego, CA

Medical Laser Safety Officer Training

Sept. 22-23 • Boston, MA
Nov. 10-11 • Las Vegas, NV
Jan. 26-27, 2007 • San Diego, CA

Laser Safety in the Lab

Aug. 14-15 • Orlando, FL

Medical Aesthetic Lasers & Light Technologies

Aug. 19-20 • Denver, CO
Sept. 16-17 • Boston, MA
Oct. 14-15 • Chicago, IL
Nov. 18-19 • Houston, TX

ICALEO[®] 2006

Oct. 30-Nov. 2 • Scottsdale, AZ

ILSC[®] 2007

Mar. 19-22 • San Francisco, CA

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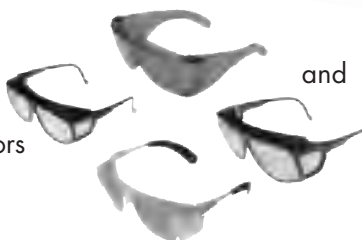
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President's Message



LIA President Joseph O'Brien

It has been a big year for the LIA. As always the LIA staff has been hard at work. Thanks to Peter Baker and the talented LIA staff, your LIA continues the tradition of developing new and vital resources for members like you. There are two developments of particular note. These include the acquisition of ALAW and the continued development of our regional LIA chapters.

Earlier this spring the LIA announced the acquisition of the ALAW conference. The conference was purchased jointly and will be operated in cooperation with the FMA. The acquisition was undertaken as part of the ongoing LIA strategy to bring more resources to the laser end-user. Mark your calendars for the 2007 conference to be held in Plymouth, Michigan next April.

Recently I had the pleasure of attending a meeting of the Northeast Regional Chapter of the LIA. The meeting was hosted by Bo Gu of GSI Lumonics in Bedford, Massachusetts. We enjoyed cocktails, a

wonderful dinner and an engaging presentation on nanotechnology.

LIA regional chapters provide a wonderful opportunity for local laser users to network on a regular basis. In addition to the Northeast Chapter, chapters have been formed in California and Michigan. If there is a regional chapter in your area, I encourage you to participate and introduce other industry professionals to the LIA. If you are interested in starting a chapter in your area please contact the LIA.

Thank you for your continued support of LIA. Please enjoy what is left of your summer. I look forward to seeing you at ICALEO® 2006 in Arizona.

All the best,

Executive Director's Message

LIA Is International



PICALO 2008 Conference Chair Minlin Zhong, left, and LIA Executive Director Peter Baker.

LIA is international. A quick look at our membership, board members, JLA contributors or ICALEO® attendees illustrates this fact.

Our Pacific International Conference on Lasers and Optics (PICALO), launched in 2004 is another example of our commitment to international activities. PICALO was held in Melbourne in 2004 and 2006 and with the guidance of Conference Chair Milan Brandt has made a successful start.

We decided to hold PICALO 2008 in Beijing April 16-18, just a few months before the Olympic Games. The conference will be held in cooperation with Tsinghua University and the Laser Processing Committee of the China Optical Society (LPC-COS).

In June, LIA Director of Conferences Beth Cohen and I went to Beijing to meet with Conference Chair Minlin Zhong (pictured left) and his LPC-COS colleagues. We made a good start to outlining the pro-

gram and appointing advisory and program committees. We then visited Beijing hotels and made a preliminary selection. Thanks to the Olympics all hotels will be brought to the best possible standards so conference attendees should be very comfortable.

We are planning a post conference tour to the Great Wall so, ever diligent, we trekked off to check it out and I can report that it is, well, Great! I recommend it as a unique experience.

Our host Minlin Zhong advised that in China "to make guests happy is our responsibility" so mark your calendars April 16-18, 2008, renew your passports, and prepare to be happy. PICALO 2008 further illustrates that LIA is international. Don't miss it!

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ICALEO, cont. from pg. 1

of CO₂ lasers had led to deep penetration laser welding. This greatly increased the range of metal thickness, which was suitable for laser processing. At the end of the second decade of laser technology, we see lasers used in a practical way for many applications in material processing. We see also exciting new research possibilities, especially for processing of semiconductors. Areas such as laser-assisted crystal re-growth and annealing of ion implantation damage point toward new methods

of generating semiconductor circuitry.

“Through the 1970s, the applications of laser processing have increased steadily. There has been gradual evolution, rather than a sudden explosion, of applications. But the growth has been marked by many innovative concepts, so that laser processing has become the method of choice for some applications, like resistor trimming and hole drilling in ceramics. For many other welding and cutting operations, laser processing is an economically competitive alternative to conventional methods.” *John F. Ready, Honeywell Corporate Technology Center*

After the First 20 Years, What Then?

“We can expect continued growth of the established applications; hardening, welding, drilling, cutting, etc.; not explosively rapid, but should be steady and consistent as

laser processing becomes more and more accepted in industry as an established technology.

“We expect laser processing to reach production status in the semiconductor industry. Later, laser processing of wafers should become desirable for applications like annealing of ion implantation damage. “One of the most exciting areas is possible use in the fabrication of electronic micro-circuitry, like laser annealing. Although still in a developmental stage, laser processing of electronic structures offers many possibilities for

Material Processing: Then, Now, and Tomorrow

“In the beginning there was the light, bright, ruby red, and the birth of a new industry. The first five years from 1960 to 1965 was the scientific curiosity period. What was a laser and what could be done with it? Then came other “family members,” that now number in the thousands.”
Sydney S. Charschan, P.E. ICALEO 1987, San Diego, CA

the future.” *John F. Ready*

Looking Forward: The Next 25 Years – Birth of ICALEO

In 1978, the Laser Institute of America decided to sponsor an international conference on laser materials processing. At the same time, under the leadership of that year’s president David Belforte, discussions were held with the Japan Laser Processing Society and the Japan Society for Laser Technology toward establishing an affiliation. The two Japanese societies joined forces and, in conjunction with LIA, held the first joint U.S./Japan International Laser Processing Conference in November 1981 in Anaheim, Calif.

For the U.S., the technical program chairman was Sidney Charschan, who later was to be president of LIA. Co-chairs were John F. Ready of the Honeywell Corporate Technology Center and Michael Bass of the University of California. Japanese co-chairs were Yoshiaki Arata and Hiromichi Kawasumi, presidents of the combined societies.

From the success of this conference, it became clear that a two-day in-depth symposium on a particular field or application provides an excellent forum for the dissemination of recent results and for the interchange of ideas among users, researchers, and manufacturers.

Then, in 1982 LIA announced the **first International Congress on Applications of Lasers & Electro-Optics**. Held in Boston, Sept. 21-23, the congress was under the leadership of David R. Whitehouse of Raytheon Co. and Haynes Lee, congress and LIA general manager. The first ICALEO offered in-depth symposia on:

- Materials Processing, Prof. Michael Bass
- Medicine & Biology, Dr. Myron Wolbarsht
- Inspection, Measurement & Control, Vince Zaleckas
- Lasers & Electro-Optics, Dr. Peter Mumola
- Optical Communications, Dr. Raymond Jaeger

Program chairman was Sidney S. Charschan, P.E. Western Electric Co. (Stay tuned to the September/October issue of **LIA TODAY** for more details on ICALEO’s 25-year history.)

Perspective: 1980s The Age of Maturity

“In materials processing we’re exploring the applications of lasers in cutting and welding, heat treatment, surface alloying and cladding, chemical vapor deposition and drilling. We’re looking at integration of lasers with robots, their application in flexible manufacturing systems, and the evaluation of different beam delivery systems for laser-robot systems on the



From left, Akira Matsunawa, Ginny and Dave Belforte (see ILPC 1981), Yoshiaki Arata.



Michael Bass, left, with Arthur Schawlow.



Technical Program Chair ('81 and '82) Sidney Charschan P.E., left, with 1984 ICALEO General Chair Michael Bass.

basis of final beam quality and its impact on materials processing." *Michael Bass, ICALEO 1984*

"Lasers and computers are married during this next period. Automation principles are applied. Parts are designed that could only be processed by lasers. Lasers are coupled with high-speed punch presses to produce special terminals. Design and instruction for safety is mandated.

"Today's lasers can be controlled to vary each and every pulse with respect to power and energy. Generally, I expect evolution rather than revolution to be the trend for material processing. Lasers will be designed for greater stability at specific wavelengths. Be assured, there will continue to be surprising innovations and advances." *Sidney S. Charschan, ICALEO 1987*

"This year we explore the exciting prospects and realities of excimer lasers and their applications in industry and medicine." *Rocco V. Lobraico, ICALEO 1988*



According to our research, 1986 saw the first actual logo for ICALEO developed.

Keeping the Charge

Since its formation in 1968, LIA, as a nonprofit professional society, has made a major effort in fostering the interchange of technical information, both in the technology and the applications of lasers and electro-optics.

How well this charge has been kept over the past 25 years is the 2006 plenary topic celebrating the Silver 25th anniversary year of ICALEO – "25 Years of Laser Processing, Looking Back to See the Future." ✱

*Jack Dyer is contributing editor for the *LIA TODAY* and managing editor emeritus, *Journal of Laser Applications*®.

Looking Forward: ICALEO 2006

The International Congress on Applications of Lasers & Electro-Optics (ICALEO®) has a 24-year history as the conference where researchers and end-users meet to review the state-of-the-art in laser materials processing and predict where the future will lead. From its inception, ICALEO has been devoted to the field of laser materials processing and is viewed as the premier source of technical information in the field. Each year ICALEO features one or more topical areas. This year, featured sessions include laser applications in the automotive, aerospace, electronics, bio-medical, and microfabrication fields.

The 25th anniversary of ICALEO will be held Oct. 30- Nov. 2 in Scottsdale, Arizona. Anyone interested in laser materials processing from the basic understanding of the interaction between a laser beam and a material, to those interested in how a process can be integrated and optimized for an application should attend. Returning ICALEO features include the Laser Materials Processing Conference, the Laser Microprocessing Conference, the Poster Presentation Gallery and the Laser Solutions Short Courses.

This year's plenary session, "25 Years of Laser Processing -- Looking Back to See the Future," will celebrate the silver 25th anniversary year of ICALEO with a speech revisiting the early years and looking ahead at new developments that are continuously emerging.

For more information or to receive a copy of the 2006 Advance Program, call LIA at 1-800-34-LASER/407-380-1553 or visit www.icaleo.org.



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Aesthetic, cont. from pg. 1

mandate did not change. But the commonality, even as they progressed into the private physician's office, was the use and control of the equipment by clinicians trained in medical discipline and procedure.

Training Suspect

With the advent of intense pulsed light, subject to very different rules than lasers, and the development of 'nonablative' procedures where there was no 'purpose or ability to remove tissue', the world began a slow and steady change. The changes themselves were not the issue. The implementation of the change was. Aesthetic procedures, especially with intense pulsed light, have been increasingly sold, trained and implemented by non-clinically trained personnel.

This is not to say that the procedures cannot be safely performed by someone other than a physician, P.A. or nurse. It is to say that the very core

of Standard of Care, a standard of education and verification of skills, has been lost in the shuffle. Many new users do not understand or use pre-, peri- or post-procedure forms and do not know how to properly inform a customer of the risks and complications of the new treatments.

Widespread Trouble

Today in the U.S. there is a wide spectrum of measured skill and certification not only from state to state but from office to office. From the tight, taxed use of aesthetic lasers by only physicians in New Jersey to numbers of states where there is no regulation on who uses a laser or their level of education the system has clearly failed to work.

The consistency of record-keeping and recommended forms is in worse shape. The outcome of that failure has been the escalation in litigation from such procedures, especially in the intense



Public demand for laser-aided procedures has safety scrambling to keep up.

pulsed light arena; and the sense of immediacy felt by many state level governing bodies to take control of the venue.

The public demand for the 'top four' of hair removal, vein removal, resolution of wrinkles, and the elimination of age spots has kindled a new aesthetic industry reaching into the spa, the beauty salon and into the offices of previously uninterested family

practice, gynecology and pediatric physicians.

The answer is not an easy one. There seems to be no single regulatory point in most states. By example, one state's Board of Medical Examiners allows physicians to determine who can operate the laser under their purview. But the same state's Board of Nurse Examiners is unequivocal in the restriction of nurse's use. So how do we begin, as an industry, to corral these issues?

Setting it Right

The first is an accepted and uniform level of measured education and competency. The second is to raise the awareness of the users, perhaps through those who sell the equip-

ment, to the need and existence of a measured level of competency. Everyone wants to act with the best interest of both safety and prosperity. The process will continue to grow, the government on a state or federal level will probably become more involved at some point, and we have the ability as prudent professionals to control both.

For the consideration of the customer, the patient, the practitioner, and the person delivering this 'service' we must begin to 'think locally and act globally'. Existing professional organizations need to reach out and help these newcomers and help them understand the needs and not just turn away as many groups in the recent past have.

The fact that lasers and intense pulsed light devices are leaving the traditional medical setting has been established for almost a decade. Now is the time for those who sell, those who use, those who teach, and those who regulate to come together for the betterment and protection of the new process. ✱

LIA member John Hoopman is a certified medical laser safety officer with UT Southwestern Medical Center.

Medical Aesthetic Lasers & Light Technologies Course

This two-day course by LIA includes a comprehensive didactic overview of the different types of lasers and pulsed light devices available. The core focus is on laser and light practicum as it applies to clinical hair reduction, vascular lesion removal, Photofacial™ laser peels, non-ablative collagen remodeling and new emerging techniques. There is also a focus on rules, regulations and the policy and procedures you need for an effective practice. The course is a 12-hour Category I CME-approved clean, simple, straightforward how-to look at cosmetic light-based procedures. Forms and guidelines are provided. We will discuss the benefits, expected outcomes, and alternative treatments focusing on patient consultation, selection and education, contraindications and precautions, safety, and technique. This is a certified course and there will be a test.

The cost is \$1,295 and has been approved for 12 Category I CMEs. There is an extra cost of \$300 to get the CMEs. Visit www.laserinstitute.org/education for more information.

Upcoming Course Dates

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Sept. 16-17 • Boston, MA

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The 2007 International Laser Safety Conference (ILSC[®]) is a comprehensive four-day conference covering all aspects of laser safety practice and hazard control. Technical sessions and workshops will address developments in regulatory, mandatory and voluntary safety standards for laser products and laser use. Laser safety experts from all over the world will meet in San Francisco, Calif. Mar. 19-22, 2007 to discuss their research, programs and standards. Presented by LIA, professionals in all fields and applications will find ILSC 2007 a tremendous source for information and networking opportunities.

ILSC Overview

ILSC will feature papers on

the following topics: worldwide safety standards and legislation, bioeffects, protective systems and devices, practical laser safety, laser safety training, protective filters and guards, use and safety of outdoor lasers, high-powered lasers, hazard and risk assessment, non-beam hazards and fume extraction, medical laser safety, accidents and incidents, and measurements.

The Conference General Chair is Benjamin Rockwell, AFRL/HEDO, Brooks City-base, Texas and the Conference Chair is John Tyrer, Loughborough Univ., Leicestershire, UK.

NEW for 2007!

The Laser Safety Practical Applications Seminar will be held Mar. 19-20. This seminar is a two-day seminar for the practi-

cal Laser Safety Officer (LSO). It will be particularly useful for LSOs who are not full-time laser safety professionals. Participants will be involved in practical interactive workshops, panel discussions, and hot topics addressing the more common safety issues and concerns of the day-to-day operations in commercial, factory, research, and medical facility settings.

Tabletop Exhibit & Sponsorship Opps

The ILSC tabletop exhibit and reception to be held Tuesday, Mar. 20 from 5:30 p.m.-8 p.m. and is open to all companies and institutions within the laser industry. This exhibit gives vendors and attendees the opportunity to meet and discuss equipment and ideas in a

relaxed setting.

ILSC 2007 will also offer various levels of sponsorship opportunities to give companies or organizations added promotional exposure. For further information, contact Beth Cohen at bcohen@laserinstitute.org.

ILSC Registration Info

Full conference registration includes admission to the plenary session and all technical sessions, workshops, welcome reception and George M. Wilkening and R. James Rockwell, Jr. Educational Achievement Award presentations, tabletop exhibits and a technical digest. LIA corporate and individual members, pre-register and save! Visit www.laserinstitute.org/conferences for more details and to register. ✱

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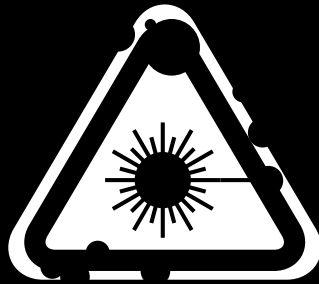
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| David A. Kun, West Hills, CA | Charmain Tidwell, Alamogordo, NM | Lucian Iordache, Hamilton, ON, Canada |
| David Kuhns, Bloomfield, CT | Thierry Marchione, Edgewood, NM | Chi Tat Kwok, Taipa, Macau, China |
| Daniel Eigner, Columbia, CT | Richard P. Harvey, Buffalo, NY | Milan Honner, Ph.D., Plzen, Czech Republic |
| Jeffrey Lyons, Monroe, CT | Jaclyn Nelson, Bellport, NY | John Tyrer, Leicestershire, UK |
| Jean-Claude Nerette, Jr., MD, SW Ranches, FL | Haiping Shao, Dublin, OH | |
| Peter Boden, Northbrook, IL | Gina Picart, Tulsa, OK | |
| Michael Chelsen, Billerica, MA | Jim Johnston, Pittsburgh, PA | |
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Chapter Corner

LIA encourages all LIA members in the supporting 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.

Northern CA Chapter

LIA is pleased to announce the formation of its third regional chapter. Formation of the Northern CA Chapter of LIA was voted on during LIA's first regional meeting in this area, which was held on Wednesday, May 31, 2006 in Sunnyvale, Calif.

Fulfilling its mission to foster lasers, laser applications, and laser safety worldwide, the LIA welcomes the support in northern California. The Northern CA Chapter of LIA includes the state of California, but is not limited to just that state.

"We certainly welcome other surrounding states to come. An LIA chapter is never limited to the state it resides in," said LIA Marketing Director Jim Naugle.

During the evening, a social hour was followed by an LIA presentation and then featured speaker Heinrich

Endert of Spectra Physics spoke on "Emerging Applications of Lasers in the Semiconductor Industry". After the presentation, the vote took place with a unanimous decision to approve the chapter's formation.

The goal of the chapter is to create a forum for networking with laser professionals in Northern California that include laser end-users, manufacturers of lasers and related products, safety officers, company presidents and researchers. The mission is to provide laser community networking avenues and education for LIA members and to serve as a recruitment tool for potential new members. Bimonthly meetings will be held throughout the area with a guest speaker or company tour as part of each one. LIA's Northern CA Chapter has a great deal to offer LIA members, both technically and professionally.

Four voluntary committee members

have been named. This committee consists of the following LIA members: Chairperson Silke Pflüeger of SPI, Neil Ball of Directed Light, Inc., David Clark of Spectra Physics, and Susan Winfree of Metal Improvement.

"The formation of an LIA chapter in this area will provide outstanding local leadership and present increasing opportunities to meet needs in the region," said LIA Executive Director Peter Baker.



According to LIA's bylaws, each chapter must consist of a minimum of 20 LIA members and form an organizational committee with one designated chair. There will not be any chapter dues

and the group must meet a minimum of four times a year. You must be a member of LIA in order to join one of its chapters. For more chapter-specific information, visit <http://www.laserinstitute.org/membership/Chapters/West/>.

Great Lakes Chapter

The most recent Great Lakes Chapter regional meeting was held July 12, 2006, at the Fraunhofer Institute in Plymouth, Mich. Featured speaker Dr. Stefan Heinemann gave a presentation on "Novel Lasers and Their Impact on Materials Processing," which gave an overview of the latest technology in industrial laser applications as well as how the technology is trending.

After the presentation the group toured the lab area and saw a working laser welder for transmission parts, the micro machining section, the IPG Photonics fiber laser comparison lab with the disk laser, and the CO₂ body-in-white welding cell. It was a rare opportunity to check out the latest real-

world applications at work.

Other items on the agenda were the submission of names to be placed on the ballot for the October election of officers for 2007 and a discussion of venue for the chapter's student-themed meeting in October and possible joint meeting with the local chapter of the Optical Society of America (OSA).

The Great Lakes Chapter includes the states of Ohio, Michigan, Illinois, Indiana, and the province of Ontario, Canada. For more information please visit www.laserinstitute.org/membership/chapters/great_lakes/.

Future Meetings:

- October 18, 2006
Student Night – Elections
- January 17, 2007
First meeting for 2007

Northeast Chapter

The next meeting of the Northeast Chapter will be held Tuesday, Sept. 26, 2006 at the Connecticut Center for Advanced Technology, Inc. (CCAT) in East Hartford, Conn. The meeting will begin at 3:30 p.m. with an optional lab tour of CCAT (www.ccat.us) before moving on to the Sheraton Hartford Hotel for a social hour, dinner and speakers.

The first speaker will be Deborah Santy, CT SBIR, of CCAT who will discuss "Tapping Federal SBIR Funds for Seed and Early-Stage Capital", followed by Robert Torrani, CMSCI, also of CCAT, discussing "Responding to Evolving Demands of Aerospace &

Defense OEMs."

The keynote speaker is Dr. Susan Coleman of the University of Hartford, Barney School of Business, giving the presentation "Economic Trends, Key Issues for the Manufacturing Sector, and A Role for Education." The keynote presentation will discuss what's going on in the economy, how it affects the manufacturing industry in general and manufacturing using lasers in particular. It will also address the link between education and needs of the industry.

Please RSVP by Sept. 12 to Elizabeth DiBona at edibona@ccat.us or 860-282-4227. For more information visit www.laserinstitute.org/membership/chapters/new_england/.

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In The News, cont. from pg. 1

would be impossible to measure," he said in the report.

U.S., Singapore Act to Simplify Telecom Trade

On June 2, new, streamlined regulatory approval procedures came into effect in the United States and Singapore, allowing U.S. makers of telecommunication equipment to certify their products at home and ship directly to the \$1.3 billion Asian market, and eliminating the need for often duplicative testing. The delay-ending, cost-saving simplification is the latest bilateral step in carrying out a 1998 trade agreement among members of APEC (Asia-Pacific Economic Cooperation). The National Institute of Standards and Technology (NIST) designated four U.S. organizations as "certification bodies," and they now have been recognized by the Singapore government as qualified to determine whether shipments of telecommunication products – including wireless equipment – comply with that country's required standards.

In a parallel action, the Federal Communications Commission (FCC) has recognized a certification body designated by the Infocomm Development Authority of Singapore. This permits Singapore telecommunication exports to be tested and certified as conforming to FCC regulations before shipment to the U.S. Two-way trade of telecommunication products between the two nations totaled about \$1.1 billion in 2005.

The joint action nearly completes the second phase of the 1998 APEC Mutual Recognition Arrangement on Telecommunication Equipment, intended to reduce technical barriers to markets. ✱

ASC Z136 Update

Plan ahead! The 2007 annual meeting of Accredited Standards Committee (ASC) Z136 will be held Mar. 18, 2007 in conjunction with the International Laser Safety Conference (ILSC® 2007) in San Francisco, Calif.

ILSC® 2007 is a comprehensive four-day conference covering all aspects of laser safety practice and hazard control, where laser safety experts from all over the world will meet and discuss their research, programs and standards.

New for 2007 is the Laser Safety Practical Applications Seminar. This two-day seminar will run concurrent to ILSC® 2007, and will be particularly useful to laser safety officers who are not full-time laser safety professionals. A sample of topics to be included are Optics 101 – a basic overview of common optics; Medical Laser Safety – from the operating room to the day spa; Laser Safety on a Budget; High Intensity Light Sources; and more!

Join us at the annual meeting, ILSC® 2007 and the new Practical Applications Seminar! Watch your mailboxes for the Call for Papers – abstract and workshop submissions are now being accepted at www.laserinstitute.org/conferences/ilsc. If you have any questions regarding ASC Z136 activities, ILSC® 2007 or the Practical Applications Seminar, please contact Barbara Sams at the LIA, 407-380-1553 or bsams@laserinstitute.org for more information.

LIA Announces

LIA Supports Global Alliance

LIA is pleased to announce it is the cooperating society for the Global Alliance for Research and Education in Laser Aided Manufacturing (GARELAM). The first, formative workshop was held July 17-18, 2006 at the National Academy of Sciences (NAS) Lecture Room in Washington, D.C. This workshop brought together premier academic and industry professionals from the international laser processing field. The purpose of this workshop was for different research centers to brainstorm on lasers and plasmas across the globe, therefore establishing a Global Alliance of Research and Education on Laser Aided Advanced Manufacturing (GARELAM) Technology.

Too often our community has fallen asleep when it comes to establishing a global platform to create a culture and process for laser research and education in the 21st century. The time is now for the community of laser application engineers and scientists to mitigate the challenge of globalization in higher education.

As a cooperating society, part of LIA's commitment will be to assist in marketing and to publish the GARELAM white papers. LIA and GARELAM would like to invite anyone in the laser industry to the follow-up meeting to be held at ICALEO on Nov. 1. For more information on the workshop, visit <http://cpd.engin.umich.edu/garelam>.

Advance Program Available

The Advance Program for LIA's 25th International Congress on Applications of Lasers & Electro-Optics (ICALEO®) is now available. The Advance Program pro-

vides details for all the technical sessions, poster presentations, business development session, vendor exhibits and short courses offered during ICALEO® 2006, to be held Oct. 30-Nov. 2 in Scottsdale, Ariz., USA.

Highlighted sessions during the conference include fiber laser processing, laser processing of biological material, laser processing in the aviation, defense, and space industry, lasers in material processing diagnostics and in nanotechnology, and the Laser Business Development Session. Don't miss the President's Reception to be held at Taliesin West, Frank Lloyd Wright's winter home, studio and architectural laboratory in the foothills of the McDowell Mountains. Sponsorship and vendor opportunities are still available. For more information, visit www.icaleo.org or contact Beth Cohen bcohen@laserinstitute.org.

LIA at AIHce

In May, LIA exhibited at the AIHce (American Industrial Hygiene Conference & Expo) in Chicago, Ill. Approximately 6,000 attended this expo, and most of them were interested in LIA's training courses, ANSI standards, and BLS certification. LIA looks forward to returning next year. ✱

It's Time To Vote!

Attention all members – your official LIA ballot will be mailed in August. Please take a moment to vote for your society's officers and board members and return your ballot promptly. Every vote counts!

Journal of Laser Applications® Update

The *Journal of Laser Applications*® offers the latest refereed papers by leading researchers in the laser community. The August 2006 issue includes papers from materials processing, sensing & measurements 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.

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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UC Berkeley, Berkeley, CA, USA

Robert Sarason, CLSO, Univ. of California at Davis, Davis, CA, USA

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BLS Background

The Board of Laser Safety (BLS) was incorporated in September 2002 as a nonprofit organization affiliated with the Laser Institute of America (LIA), a California nonprofit corporation. The mission of the BLS is to provide a means for improvement in the practice of laser safety by providing opportunities for the education, assessment, and recognition of laser safety professionals.

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