

Where Steel Prices are Going

On March 15, John Cross, AISC's Vice President of Marketing, discussed the impact of steel price volatility at the Associated General Contractors of America (AGC) Annual Meeting. According to Cross, steel prices are currently hovering at about \$570 per ton and 2005 should see minor variations of less than 10%.

Fortunately, he added, availability of structural shapes has not been and will

not be an issue. Domestic consumption in 2004 was 4 million tons against an annual domestic production capacity of 6 million tons—a 50% growth cushion. Rapid delivery to your fabricator of choice can be achieved from either a mill or steel service center.

To learn more about the 2005 steel price outlook, visit www.aisc.org/playground for the complete presentation. ★

AISC/ACSA Student Design Competition

A total of 597 registrations from 74 schools of architecture have been received for the 2004-2005 AISC/Association of Collegiate Schools of Architecture (ACSA) Student Design Competition. The competition exposes future architects to the advantages of using steel.

2,284 students are working on project submissions for the competition's two categories: Category I— Student Union Buildings and Category II— open submissions with steel as the primary design material. Judging will take place May 14 in Washington D.C.

For more information, please contact AISC University Relations Director, Fromy Rosenberg, P.E., at 312.670.5408 or by e-mail at rosenberg@aisc.org, or contact AISC University Education Coordinator Megan Maurer at 312.670.5418 or by e-mail at maurer@aisc.org. ★

In Memoriam

Richard W. Marshall, 77, of Lower Macungie Township, PA, died March 14.

Marshall was a member of the American Institute of Steel Construction, where he served as chairman of the Code of Standard Practice Committee from 1972 to 1980 and on the Specifications Committee from 1982 to the present. He was a member of the Research Council on Structural Connections, the American Society for Testing Materials, the National Society of Professional Engineers, and the American Society of Civil Engineers.

Born in Brooklyn, NY, Marshall was a 1951 graduate of Rensselaer Polytechnic Institute with a degree in civil engineering. He worked for Lehigh Structural Steel from 1951 to 1989, when he retired as vice president of engineering. He was vice president of engineering for American Steel Erectors, South Plainfield, NJ, from 1989 to 1993. ★

Got news? Send your news items for *Modern Steel Construction* to Keith Grubb (grubb@modernsteel.com) or Lena Singer (singer@modernsteel.com).

Seeking 2006 T.R. Higgins Lectureship Nominations

Nominations for AISC's 35th annual T.R. Higgins Lectureship Award are being accepted through **July 1, 2005**. The award recognizes a lecturer and author whose published paper or papers are considered an outstanding contribution to engineering literature on fabricated structural steel.

The award is named after Theodore R. Higgins, Ph.D., a past AISC Director of Engineering and Research, who was widely acclaimed for his many contributions to the advancement of engineering technology related to fabricated structural steel.

The nominated author must be a resident of the U.S. and able to fulfill

the award's commitments. The paper or papers must have been published in a professional journal between January 1, 2000 and January 1, 2005.

The award will be presented on the basis of two criteria: (1) the individual's reputation as a lecturer and (2) the jury's evaluation of the writing named in the nomination.

Send your nominations to: T.R. Higgins Award Nomination c/o Janet T. Cummins, Engineering and Research Coordinator, AISC, One E. Wacker Dr., Suite 3100, Chicago, IL 60601-2000. For more information about the award and nomination requirements, please visit www.aisc.org/awards. ★

STI and ACSA Sponsor Collegiate HSS Competition

The Association of Collegiate Schools of Architecture (ACSA) and the Steel Tube Institute (STI) of North America sponsored a collegiate design competition March 4-5 in Chicago that focused on the use of Hollow Structural Sections.

Architecture students from the University of Wisconsin—Milwaukee pro-

duced the winning "ExoSkeleton" structures, designed to connect and unify Chicago's Millennium Park and Daley Bicentennial Plaza.

The competition was limited to 12 teams and drew schools from the United States and Canada. For more information, see www.steeltubeinstitute.org. ★

Cellular Beam Organization Formed

The International Institute of Cellular Beam Manufacturers (IICBM) has been formed to develop, establish, and maintain standards for the design and manufacture of cellular beams worldwide. IICBM works closely with architects, engineers, and major building code bodies throughout the world to help develop code resolution in regard to cellular beam design. The institute's focus is testing, research, development, and professional continuing education.

IICBM's founding members are Arcelor Long Commercial of Luxemburg, CMC Steel Fabricators, Inc. and SMI Steel Products (a subsidiary of Commercial Metals Company) of the United States, Westok Limited of the United Kingdom, and MacSteel Trading of South Africa.

The first bi-annual meeting of IICBM was held October 18, 2004 in Luxemburg City, Luxemburg. The spring 2005 bi-annual meeting will be held in New York City. For the latest information, please refer to IICBM's web site at www.iicbm.org. ★

11th INTERNATIONAL SYMPOSIUM and IIW INTERNATIONAL CONFERENCE on TUBULAR STRUCTURES

August 31 to September 2, 2006 in Québec City, Canada

TOPICS

- ❑ Architecture, Applications and Case Studies
- ❑ Static and Fatigue Behaviour of Connections
- ❑ Concrete Filled Hollow Sections and Composite Tubular Members
- ❑ Offshore Structures
- ❑ Earthquake Resistance
- ❑ Specification and Standard Developments
- ❑ Expert Systems and Knowledge-Based Systems
- ❑ Material Properties and Structural Reliability
- ❑ Sustainability of Tubular Structures
- ❑ Fire Resistance

EXHIBITION

Booths will be organized for exhibitors during the Symposium, allowing companies and associations an excellent opportunity for marketing and promotion.

For further information, including the Call for Papers, please visit the website at:

www.ists11.org

Sponsored by:



NASCC 2005 Draws more than 2,300 Attendees

The 2005 North American Steel Construction Conference attracted to Montreal, Quebec more than 2,300 steel industry professionals and nearly 150 exhibitors, making this year one of the most successful in the history of the steel conference.

Over the course of this four-day event, attendees primarily from the United States and Canada connected with representatives from leading structural steel product manufacturers, witnessed the latest in heavy machinery technology on the conference's exhibition hall floor, and participated in technical sessions, tutorials, and short courses to gain practical information on the most up-to-date topics in steel construction and to earn continuing education units.

The first of the conference's plenary sessions opened with the presentation of the 2005 AISC Achievement Awards. This presentation was followed by the keynote speech, "The Future of Steel Fabrication," delivered by Kendall H. Flessas, director of fabrication technologies for Maglev, Inc., a Pennsylvania company working to fabricate and install the first commercial magnetically levitated high-speed steel rail transportation system in the United States.

"Sometimes it takes one good project to change the way we think and the way we do things," Flessas said. While the Maglev project is beyond the bleeding edge for building and bridge fabricators, the technology developed in the process has the potential to have the type of impact on the fabrication industry that the space program had on other industries in the 1960s.

Flessas challenged attendees to set a new standard for North American steel fabrication by continuing to develop cutting-edge fabrication technology, employing the vast technologies now available, and implementing education programs for workers on the fabrication shop floor. He urged attendees to not only think outside "the box," but beyond it. "For this kind of project, there is no box," he said. "You have to look everywhere."



With more than 2,300 attending, the exhibit hall bustled with activity.

Following Flessas's speech, the conference's 100,000 sq. ft exhibition hall opened its doors, offering attendees the opportunity to talk to the experts on the latest in structural engineering and steel detailing software, structural shapes, bending and rolling services, metal deck, steel joists, steel fabrication machinery, and more.

"The whole experience was great," said Brad Blacketer, North American Galvanizing Company's director of sales and marketing. North American Galvanizing Company was among this year's first-time exhibitors.

"We quoted two projects, and that rarely happens at trade shows," Blacketer said.

Also new to this year's exhibition were Heavy Machinery Workshops. The workshops, presented in a special classroom on the exhibition hall floor, included such topics as: "How One Fabricator Reduced Man-Hours per Ton by 600%" and "How the Small Fabricator can Maximize Profits."

For the conference's second plenary session, Werner Sobek, a German structural engineer known worldwide for his innovative yet simple designs, presented his keynote address, "The Future of Engineering". Sobek's design credentials include the SONY Center in Berlin, the New Bangkok International Airport, and a portable motor show stand for automotive manufacturer Audi AG.

"Too many things in engineering are too conservative," Sobek said.

Sobek urged the audience to seek "joy and fun" in design, in spite of the pressures of schedule and competition. Using his own designs as examples, Sobek illustrated that high-quality, efficient, and imaginative structures can be realized with success and simplicity through teamwork and technology.

"There are enormous amounts of ways an engineer can overcome the given boundaries," he told the packed auditorium.

The conference's final plenary session featured the presentation of the 2005 T.R. Higgins Award lecture, based on the paper "Continuity Plate Detailing for Steel Moment-Resisting Connections," by Jerome Hajjar and Robert Dexter.

Hajjar presented the lecture, in which he argued that there have been many cases in which moment-resisting connections have been designed and detailed more conservatively than necessary in both seismic and non-seismic zones in the decade following the 1994 Northridge, CA earthquake.

Based on results of experiments performed by Hajjar and Dexter, economical alternatives for detailing column stiffeners in steel moment-resisting connections were provided, as well as revised design



AISC Chairman Jim Stori presents the AISC Faculty Fellowship Award to Judy Liu of Purdue University.



Hugh Dobbie of Dowco accepts the award for 2004's best *Engineering Journal* paper from EJ editor Cynthia Duncan.



AISC's Vice President of Engineering and Research Louis Geschwindner, left, presents the T.R. Higgins Award to Jerome Hajjar of the University of Minnesota, right.

AISC Achievement Awards

Lifetime Achievement (educator)

Stanley T. Rolfe, Professor of Civil & Environmental Engineering, University of Kansas

Special Achievement (educator)

Donald W. White, Professor, Georgia Institute of Technology—for his accomplishments as one of the recognized authorities on fatigue and fracture

Special Achievement (educator)

Jeffrey A. Packer, Professor, University of Toronto—for his notable advancement of the field of HSS connections.

Special Achievement (designer)

Alan G. Davenport, Founder and Director, Boundary Layer Wind Tunnel Laboratory, University of Western Ontario—for his contributions to the development and application of wind engineering and design.

Best Engineering Journal Paper of 2004

Hugh Dobie: "Structural Steel Detailing Practices—Good and Bad"

Faculty Fellowship

Judy Liu, Assistant Professor, Purdue University—for the development of steel panel-dual systems for lateral resistance of steel frame buildings.

equations for limit states for column reinforcement detailing (AISC members can download the complete paper at www.aisc.org/epubs).

Hajjar concluded the lecture by honorably recognizing Dexter, who passed away last fall, and his valuable contributions to the steel design and construction community. "Every day I think about him and the contributions he made," Hajjar said.

Many attendees reported coming away from this and other sessions with significant new information.

"Some of the seismic sessions brought information to my attention that I wasn't aware of," said John Nagel, Senior Vice President of AFCO Steel. At next year's conference, a special "seismic track" will be added.

In total, more than 50 technical sessions, short courses, and educator sessions were offered throughout the conference. These sessions included specialized tracks for engineers, detailers, fabricators, and erectors.

"I find that it's a good combination of fabrication and engineering," said Susan Guravich of Skarborn Engineering, Ltd. Guravich noted "Listen to the Steel!", presented by Duane K. Miller, Manger and Welding Design Consultant for The Lincoln Electric Company's Welding Technology Center, as a particularly outstanding session in the engineering track. "It was the best primer on fatigue I've ever heard."

"I learn a lot of things to bring back to the classroom," said Janice Chambers, Professor of Civil Engineering at the University of Utah, where she teaches steel design courses. "New information and test results were presented in all of the sessions I attended."

Ninety-two professors attended this year's educator session, entitled "First Look: The 2005 AISC *Specification* and *Manual*." This session, as well as several similar technical sessions, was presented by AISC's Department of Engineering and Research on the forthcoming AISC *Specification for Structural*

Steel Buildings and the AISC *Manual of Steel Construction*, both scheduled for release later in 2005.

The new *Specification* will recognize the two major structural design approaches—Load and Resistance Factor Design (LRFD) and Allowable Stress Design (ASD)—as acceptable for safe, reliable, and economical design. It will combine provisions from the separate design standards into one standard and will incorporate important new advances in structural design.

"There will no longer be a conflict between ASD and LRFD," said Louis Geschwinder, AISC Vice President of Engineering and Research.

"I've been a structural engineer for 50 years and have always followed AISC code," said Ivan Lippi Rodrigues, director of Ivan Lippi Rodrigues Associate Engineers in Sao Paulo, Brazil. "The combined *Specification* is a very good idea."

The new *Manual* will also contain up-to-date information, particularly for those still using the 9th Edition *Manual* and 1989 *Specification*. The new *Manual* will feature tables and charts for both design philosophies and will be accompanied by a CD-ROM with design examples for all provisions of the *Specification*.

"The new *Manual* builds on our past successes," Geschwinder said. "With new ideas, it's prepared to move us forward."

Among the sessions to be offered at next year's conference will be a six-hour short course on the new *Manual*.

As yet another facet of the conference's events, the 2005 Annual Stability Conference of the Structural Stability Research Council (SSRC) was held in conjunction with NASCC. The stability conference, which was made open to all steel conference participants, brought together international stability experts to examine a wide variety of stability topics including stability analysis and design issues,



This year's conference dinner featured ample opportunities for networking with industry professionals.

bracing for stability, and stability issues for steel bridges.

Donald Sherman, SSRC Treasurer and Professor Emeritus of Civil Engineering and Mechanics at the University of Wisconsin—Milwaukee, acted as moderator for one of the stability conference's technical sessions. Sherman has attended almost 30 steel conferences.

"It keeps you involved with breath of engineering," Sherman said of NASCC. "You pick up a lot of ideas about what the developments are, what people are doing, and where things are headed."

The steel conference is headed back to the United States next year—saddle up for San Antonio, TX on February 8-11, 2006!

AISC members can download the complete 2005 NASCC Proceedings by visiting www.aisc.org/epubs. ★ —Lena Singer



Heavy machinery exhibitor Controlled Automation demonstrates a plasma cutter in the exhibit hall.