

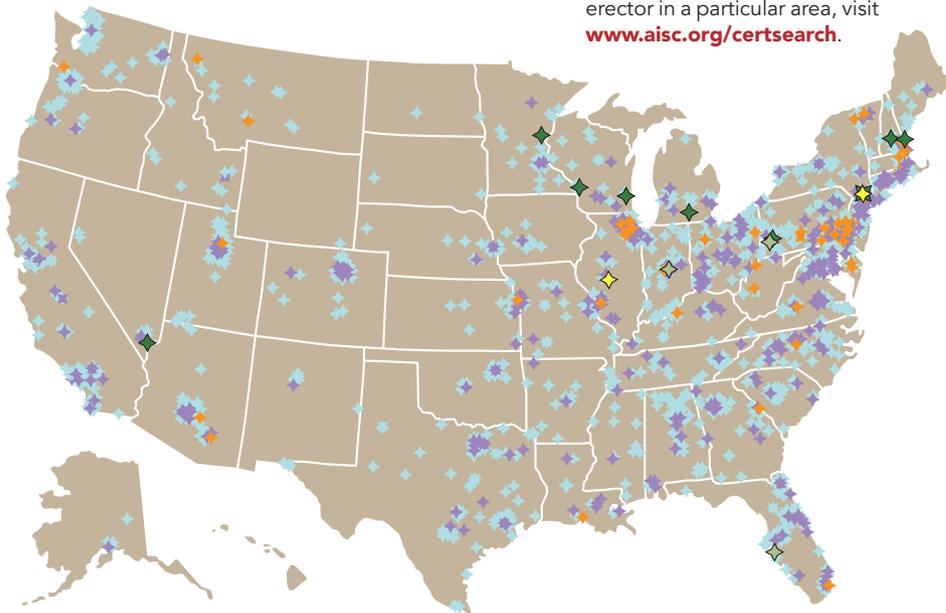
APRIL 2011

## This Month in MSC

- ▶ New EPA regulations are about to kick in, and they require more than passive compliance from structural steel fabricators. AISC's Tom Schlafly provides a brief explanation beginning on page 46.
- ▶ This issue contains previews of several presentations scheduled for delivery in Pittsburgh May 11–14. Also, a comprehensive advanced list of exhibitors starts on page 55.
- ▶ Do you practice what you preach when it comes to root cause analysis? Sometimes a minor personal incident, as described by an experienced quality auditor, helps put the validity of that approach in perspective. Read about it on page 76.
- ▶ **COMING NEXT MONTH:** The May issue of *MSC* will include coverage of AISC's 2011 IDEAS<sup>2</sup> award winners, which will be announced at The Steel Conference. Fourteen outstanding projects are being recognized this year for their innovative design in engineering and architecture with structural steel.

## Newly Certified Facilities: February 1–28, 2011

To find a certified fabricator or erector in a particular area, visit [www.aisc.org/certsearch](http://www.aisc.org/certsearch).



Existing Certified Fabricator Facilities

Existing Certified Erector Facilities

Existing Certified Bridge Component Facilities

Newly Certified Fabricator Facilities

Newly Certified Erector Facilities

Newly Certified Bridge Component Facilities

### Newly Certified Fabricator Facilities

Blouin Steel Fabricators, Inc., Northfield, N.H.  
Cubic Designs, Inc., New Berlin, Wis.  
DAKA Corporation, Pine City, Minn.  
Lincoln Fabricating Company, Inc., Pittsburgh, Pa.  
Peninsula Fabricating, Inc., Jonesville, Mich.  
Rescue Bridge Repair, Somersworth, N.H.  
River Steel, Inc.–West Salem, West Salem, Wis.  
Southwest Steel, LLC, Henderson, Nev.  
M.S. Iron Works Inc., Ossining, N.Y.

### Newly Certified Erector Facilities

Abate Irwin, Inc., Eighty Four, Pa.  
Bowen Engineering Corp., Indianapolis, Ind.  
Southwest Steel Erectors, Braderton, Fla.

### Newly Certified Bridge Component Facilities

M.S. Iron Works Inc., Ossining, N.Y.  
Structural Rubber Products, Springfield, Ill.

## People and Firms

• **William F. Baker, Jr., S.E., P.E.**, has been elected to membership in the National Academy of Engineering, one of the highest professional honors for engineers. His election citation is "For leadership in the development of innovative structures for high-rise buildings worldwide." Engineers are elected by current NAE members, which include distinguished individuals from all engineering disciplines. Baker is the structural engineering partner for Skidmore, Owings & Merrill, Chicago, and an AISC Professional Member. Among many other professional activities, he serves on the AISC Specifications Committee.



Jill Pader Photography

• **Dan M. Frangopol** was recently named a Distinguished Member of the American Society of Civil Engineers (ASCE) in honor of his contributions to civil and structural engineering. Distinguished membership is ASCE's highest accolade and recognizes eminence in a branch of engineering. It has been conferred on only 192 of the Society's 144,000 members worldwide. Frangopol was formally inducted at the Celebration of Leaders luncheon during ASCE's 140th Annual Civil Engineering Conference held in October 2010 in Las Vegas. Frangopol currently is serving in the inaugural position of the Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University. To learn more, read the original announcement of the award on the Lehigh University website at <http://bit.ly/fnqwwS>.



• AISC member firms **ConXtech** and **Tekla** have been featured in a case study of a U.S. Navy structural steel project in Southern California reported on [ipdchannel.net](http://ipdchannel.net). The project used IPD, BIM and the ConXtech system to optimize construction speed and economy. Read about it at <http://bit.ly/fn9SAE>.



IPD Channel Case Study

## EDUCATION

### Student Scholarship and Fellowship Opportunities

University juniors, seniors, and graduate students in civil or architectural engineering, or construction management, can take advantage of this annual opportunity to receive financial assistance by applying for the 2011-2012 program at [www.aisc.org/universityprograms](http://www.aisc.org/universityprograms). Applications will be accepted until May 1, 2011.

## RESOURCES

### New HSS Reference Book Offered as Free PDF

Looking for an informative HSS resource? Check out the publications available from CIDECT, the international association of leading manufacturers of hollow sections and pipes, [www.cidect.org](http://www.cidect.org). The organization, which is formally known as Comité International pour le Développement et l'Etude de la Construction Tubulaire (International Committee for the Development and Study of Tubular Structures), is now offering the second edition of its *Hollow Sections in Structural Applications* as a free PDF download.

Authored by J. Wardenier, J.A. Packer, X.-L. Zhao and G. J. van der Vegte, this 240-

AISC and members of the structural steel construction community place high priority on the development of future professionals and continue to offer more than \$75,000 of aid to university students for this year's program. For detailed information on the awards, read the full AISC press release by visiting <http://bit.ly/eu3lp8>.

page publication was published in 2010 and has only recently become available on the web. Designed as a reference for structural and civil engineering students and instructors, it provides a wide range of technical information along with architectural examples and photographs. Nearly a hundred pages are dedicated to HSS joints of various types.

To learn more about *Hollow Sections in Structural Applications*, or to download the free PDF file, visit [www.cidect.org](http://www.cidect.org) and select Publications, or go to <http://bit.ly/eIbPnw>. Although there is no charge to download the document, free registration is required.

## COMPETITION

### Vote for the 2011 Prize Bridge Awards

Voting is now open for the 2011 Prize Bridge Awards honoring significant and innovative steel bridges constructed in the United States. The prize bridge competition began in 1928 with first place awarded for the Sixth Street Bridge in Pittsburgh, coincidentally just a few blocks down the river from the venue for this year's NASCC: The Steel Conference. Since then, more than 300 bridges have won first place in a variety of categories.

This year's winning bridges will be selected from a pool of all the award-winning bridges recognized since the competition began in 1928. There are two concurrent levels of competition that will result in both Industry Choice and People's Choice award winners.

Explore the past Prize Bridge winners, discover new and old favorites, and vote throughout the month of April at <http://bit.ly/gmS9U2>.

For a list of the previous award-winning bridges, go to <http://bit.ly/a38uku>.

## IMAGERY SERVICES

### Web Mapping Made Easy

Highlands Ranch, Colo.-based OnTerra Systems LLC has introduced MapSavvy WMS, an inexpensive Web Mapping Service (WMS) application based on Bing maps. The service provides an economical and convenient way to access images from Bing maps for a



OnTerra Web Mapping

variety of practical business uses, such as aerial-view site images for inclusion in architecture and engineering drawings, proposals, and reports.

A long-time Microsoft Business Partner, OnTerra Systems developed MapSavvy WMS to work with popular WMS clients including AutoCAD, MapInfo, MicroStation, QGIS, GlobalMapper, and Gaia. It is available

for \$2 per user per month, which includes a Bing maps license, or \$1 per month for users who already have a Bing maps license.

To see examples or sign up, go to <http://bit.ly/eVaCE0>.

## MATERIALS

### New Larger HP Shapes Available

AISC-member Nucor-Yamato is now producing H16 and H18 sections, the first new H-pile sizes in decades. The new sections of HP16 and HP18—the country's largest H-piles ever produced—give engineers and contractors a more economical way to construct deep foundations for buildings and bridges. Another possible benefit of these shapes: using them as columns in building construction.

“HP shapes have webs that are the same thickness as the flanges, in contrast to W-shapes where the web is thinner,” says Charles J. Carter, S.E., P.E., Ph.D., AISC's vice president and chief structural engineer. “A thicker web will reduce the need for stiffeners and doublers. Stiffeners cost hundreds of dollars each and a typical doubler plate might cost a thousand dollars. Total these numbers per moment-connected column and that'll add up quickly. Plus, the HP section weight might be less than the W-shape weight required to eliminate the stiffeners and doublers.”

The ASTM standard specification for structural shapes and piling products now includes a total of 10 new HP16 and HP18 profile sections. Six are within the HP16 range, varying from 88 to 183 lb per ft in 20-lb increments, and four are within the HP18 range, varying from 135 to 204 lb per ft with about the same increments. Until now, the industry has relied on four nominal sizes of H-Piles: HP8, HP10, HP12 and HP14.

Dimensions and properties of the H16 and H18 sections are now available on the Nucor Yamato website and will be included in the AISC 14th Edition *Steel Construction Manual*, scheduled to be released later this year. To download the information now, visit [www.nucoryamato.com](http://www.nucoryamato.com), select Sales Info, then Product Catalog, or go to <http://bit.ly/fEATVt>. HP dimensions and properties are on pages 38 and 39 of the PDF document.



H16 and H18 Shape Data (N-Y)

## EVENTS

### Key Registration Information for 2011 NASCC: The Steel Conference

Our calendars say it's officially springtime, which means this year's North American Steel Construction Conference is just around the corner. If you haven't already, mark May 11-14 as "at NASCC: The Steel Conference in Pittsburgh" and join the more than 3,500 other industry professionals expected to attend. Here are some important deadlines and tidbits to keep in mind to register for the conference and plan your trip to Steel City.

NASCC 2011 pre-registration discounts are available through May 5. After that date, on-site registration rates apply. For convenient online registration, go to [www.aisc.org/nascc](http://www.aisc.org/nascc). The website also offers program information to help in planning to get the most out of the technical seminars, networking, and product showcase. Select "Schedule" for an overall timetable for the week's events as well as links to



2011 NASCC:  
The Steel Conference

downloadable PDF files of the NASCC Schedule-At-A-Glance and the NASCC Advance Program (which also was an insert with the January issue of *MSC*).

Full registration for AISC members is \$390 (and the third registrant from your firm gets a discounted rate of \$195). Full registration for non-AISC members is \$550 (and the third registrant from your firm gets a discounted rate of \$285). Your registration gains you admittance to technical sessions, keynote address, the T.R. Higgins Lecture, and the exhibition hall.

April 18 is the deadline to book your hotel room at one of the official NASCC hotels in Pittsburgh before the blocks are released, and reservations will then be based on availability at higher rates. It's also the date to register by in order to receive your name badge and registration materials in the mail prior to the



2011 NASCC  
Advance Program

conference. Check your mailboxes the week of May 2 for these materials.

The Steel Conference offers more than 90 technical sessions and is the premier educational event for structural engineers, fabricators, erectors, and detailers. In addition to practical seminars on the latest design concepts and construction techniques, the Conference offers an extensive trade show (featuring products ranging from structural software to machinery for cutting steel beams) and plentiful networking opportunities. It's a once-a-year opportunity to learn the latest techniques, see the most innovative products, and network with your peers and clients.

And, don't forget about those PDHs (Professional Development Hours); you can earn up to 28 of them at The Conference.



2011 NASCC  
Schedule-At-A-Glance

## WEB RESOURCES

### Keep Tabs on the Industry Through *MSC's* Steel in the News

Daily news posts on the *Modern Steel Construction* website, [www.modernsteel.com](http://www.modernsteel.com), often include late-breaking steel-related developments beyond those printed in the monthly magazine. For example, online announcements for events and about comment periods for steel-related codes and standards frequently are posted prior to being published in print.

To make it easier for you not to miss items of interest, consider subscribing to the [modernsteel.com](http://modernsteel.com) RSS feed using a handy button available by clicking the "View more news" link on the *MSC* home page or by visiting <http://bit.ly/hVAzIV>. If you are viewing the page in Internet Explorer, for example, you can click on the "Subscribe" link to view the RSS feed, then click on the "Subscribe to this feed" link to add it to your IE subscriptions. Return to the Steel in the News archives page and you can navigate through the posts going back to 2007.