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## AISI Committee on Specifications Meets

The Committee on Specifications for the North American Specification for the Design of Cold-Formed Steel Structural Members and its subcommittees met for their semi-annual meeting on February 20th, 21st and 22nd in Denver, CO. The meeting consisted of updates on ongoing research as well as discussion on proposed changes to the Specification.

Brief research reports were also presented on several AISI sponsored research projects. Dr. Ben Schafer provided a progress report for a project to extend the direct strength method to perforated members. Mr. Michael Seek, graduate student at Virginia Tech, reviewed progress on a study of purlin anchorage forces. The study is under the direction of Dr. Tom Murray. The Committee also received a progress report from Dr. Roger LaBoube on the University of Missouri-Rolla study for the interaction of shear and tension strength of arc spot weld connections. Dr. Tom Sputo briefed the Committee on the study of multiple stud bracing. Jay Larson provided an overview of cold-formed steel framing standards.

With the completion of the 2004 Supplement to the North American Specification for the Design of Cold-Formed Steel Structural Members, several possible enhancements to and/or additions to the Specification were discussed at the meetings.

The Committee's next meeting is scheduled for July 31st, August 1st and 2nd, 2006.

## AISI Launches Redesigned Website

The American Iron and Steel Institute (AISI) has launched its new and improved SteelWork website, [www.steel.org](http://www.steel.org). The redesigned website allows visitors to enjoy a streamlined design that is easier to navigate, and dynamic contents that keep pace with the latest news and information. Visitors (once registered as a "guest") will be able to customize the website contents and view the latest related changes.

With the launch of the website, some new contents related to cold-formed steel have been added under "Construction - Codes and Standards". Engineers and researchers can find interesting information such as:

- Cold-Formed Steel Design
- Standards Errata
- Standards Interpretations
- Research Reports
- Technical Articles
- FAQs
- Committees

Under the "Cold-Formed Steel Design", links are provided to interesting topics, cold-formed steel software, online courses and seminars, and recently published standards and design guide. Standards errata and standards interpretations are provided under the links "Standards Errata" and "Standards Interpretations". In addition, Research reports for projects sponsored by AISI are posted under the "Research Reports" section. Interesting technical articles, cold-formed steel related FAQs, and introduction to AISI Committee on Specifications and Committee on Framing Standards are provided as well. For more information, please visit the AISI website at [www.steel.org](http://www.steel.org).

# HONOREES



## Hank Martin Retires

After 23 years of service Hank Martin retired from the American Iron and Steel Institute. During the last 10 years Hank served as the director of Construction Codes and Standards. Hank was a visionary who championed improvements to building codes and standards to enhance steel's position in the construction market. During the February 21 and 22 meetings of the AISI Committee on Specifications Hank was recognized for his service to the industry and specifically to the Committee on Specifications with a plaque that read "For your outstanding and service and contributions to the steel industry".

**Left: Hank Martin accepts congratulations from Roger Brockenbrough.**

## Clarkson Pinkham Honored

During the February 21 and 22 meetings of the Committee on Specifications Clarkson Pinkham was recognized for his service to the steel industry. This newly created award was presented to "Pinky," who has been a member of the Committee on Specifications and involved in AISI activities for more than 30 years. During this time he has served on numerous subcommittees and has been the chairperson of the editorial committee. Pinky's plaque read "American Iron and Steel Institute presents this award of appreciation to Mr. Clarkson W. Pinkham in recognition for thirty years of outstanding leadership and technical service to the steel industry through participation on AISI Committee on Specifications".

**Right: Clarkson "Pinky" Pinkham receives his award of appreciation from Roger Brockenbrough.**



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## Martinez-Garcia receives 2006 Vinnakota Award



The recipient of the 2006 Vinnakota Award was Jose Martinez-Garcia for his paper "Benchmark Studies to Compare Frame Stability Provisions." Martinez-Garcia, of Bucknell University, was presented with the award at the 2006 SSRC Annual Stability Conference in San Antonio, Texas along with his advisor, Professor Ronald Ziemian.

The Vinnakota Award was established in 1997 by Ramulu S. Vinnakota, long-time member of SSRC, in honor of his parents, Sarada M. and Raju A. Vinnakota, who believed in education and research. The award is given for the best paper based on the thesis or research of an M.S. or Ph.D. student.

From left: Professor Ronald Ziemian, Professor Ramulu S. Vinnakota, and Jose Martinez-Garcia

## 18th International Specialty Conference on Cold-Formed Steel Structures

Preparations are being made for the 18th International Specialty Conference on Cold-Formed Steel Structures. The conference is scheduled for October 26th and 27th, 2006 and will be held in Orlando, FL. It is anticipated that approximately 45 technical papers will be selected for presentation during the two-day conference. For program details refer to the Center's webpage: (<http://www.umn.edu/~CCFSS>).

## Yura Receives 2006 Lynn S. Beedle Award

The Structural Stability Research Council recently named Professor Joseph A. Yura as the recipient of the 2006 Lynn S. Beedle Award. The award was presented to Prof. Yura by SSRC Chairman, Nestor Iwankiw, at the 2006 SSRC Annual Stability Conference in San Antonio, Texas.

The Beedle award was established in honor of Prof. Lynn S. Beedle, an international authority on stability and the development of code criteria for steel and composite structures. Prof. Beedle was a leader and outstanding contributor to the work of the Structural Stability Research Council for a period of more than 50 years, establishing the council as the pre-eminent organization worldwide in the area of structural stability. Prof. Beedle passed away in 2003.



Professor Joseph A. Yura is presented with the 2006 Lynn S. Beedle Award by SSRC Chair Nestor Iwankiw.

Prof. Yura, currently Professor Emeritus and formerly Cockrell Family Regents Chair in Engineering at the University of Texas in Austin, is a longtime member of SSRC. He received his B.S.C.E from Duke University, M.S.C.E. from Cornell University, and his Ph.D. from Lehigh University. As an SSRC member, he has contributed substantially with professional service as well as technical contributions, particularly the outlines for both the SSRC Bracing Short Course and the Stability of Columns and Frames. During his time at Texas he concentrated his teaching and research in structural engineering in the areas of steel design, stability, structural connections and offshore structures. He also has industrial and government experience in several areas including structural connections, instability and behavior and design of tubular connections. Prof. Yura has received numerous awards for his teaching and research related to steel structures including the T.R. Higgins Lectureship Award, the Raymond C. Reese Research Prize and the Shortridge Hardesty Award. As a member of the AISC Specification Committee since 1972, Prof. Yura was the principal developer of the stability bracing provisions in the 2000 AISC-LRFD Specification.

# SPECIAL ISSUE: COLD-FORMED STEEL MEMBERS AND STRUCTURES

A special cold-formed steel structures theme issue of the American Society of Civil Engineers Journal of Structural Engineering was published in April 2006. The majority of the papers appearing are from the Seventeenth International Specialty Conference on Cold-Formed Steel Structures, which was held in Orlando, Florida in October of 2004. This biannual conference, which is an important forum for research and practice exchange in the field, is organized by the Center for Cold-Formed Steel Structures at the University of Missouri-Rolla. This issue provides expanded versions of the most highly regarded papers from this conference as selected by the members of the ASCE-SEI Committee on Cold-Formed Steel of the TAC on Metals. This special issue was edited by Dr. Ben Schafer of Johns Hopkins University and the Committee on Cold-Formed Steel performed nearly all of the paper reviews, committee members include R. LaBoube, J. Fisher, W. Kile, J. Larson, G. Polard, T. Sputo, W. Easterling, H. Salim, R. Serrette, W. Allen, B. Schafer, R. Lindenberg, T. Roecker, L. Xu, N. Rahman, E. Di Girolamo, and C. Rogers.

The following is a summary of the papers and authors:

## **Distortional Buckling of Cold-Formed Stainless Steel Sections: Experimental Investigation**

Maura Lecce and Kim J. R. Rasmussen

## **Distortional Buckling of Cold-Formed Stainless Steel Sections: Finite-Element Modeling and Design**

Maura Lecce and Kim Rasmussen

## **Distortional Buckling Tests on Cold-Formed Steel Beams**

Cheng Yu and Benjamin W. Schafer

## **Local-Plate and Distortional Postbuckling Behavior of Cold-Formed Steel Lipped Channel Columns with Intermediate Stiffeners**

Nuno Silvestre and Dinar Camotim

## **Numerical Simulation of High-Strength Steel Box-Shaped Columns Failing in Local and Overall Buckling Modes**

Demao Yang and Gregory J. Hancock

## **Strength and Stiffness of Conventional Bridging Systems for Cold-Formed Cee Studs**

Perry S. Green, Thomas Sputo, and Viswanath Urala

## **Seismic Behavior of Sheathed Cold-Formed Structures: Numerical Study**

Gaetano Della Corte, Luigi Fiorino, and Raffaele Landolfo

## **Seismic Behavior of Sheathed Cold-Formed Structures: Physical Tests**

Raffaele Landolfo, Luigi Fiorino, and Gaetano Della Corte

## **Design Criteria for Seam and Sheeting-to-Framing Connections of Cold-Formed Steel Shear Panels**

L. A. Fülöp and D. Dubina

## **Cold-Formed Steel Frame Shear Walls Utilizing Structural Adhesives**

R. Serrette, I. Lam, H. Qi, H. Hernandez, and A. Toback

## **Experiments of Cold-Formed Steel Connections and Portal Frames**

Y. B. Kwon, H. S. Chung, and G. D. Kim

## **Small-Scale Test Behavior of Cold-Formed Steel Roof Trusses**

John L. Dawe and James V. Wood

## **Full-Scale Test Behavior of Cold-Formed Steel Roof Trusses**

James V. Wood and John L. Dawe

## **Behavior of Complex Hat Shapes Used as Truss Chord Members**

Nuthaporn Nuttayasakul and W. Samuel Easterling

## **Experimental Capacity Assessment of Cold-Formed Boxed Stud and C Stud Wall Systems Used in Australian Residential Construction**

Maria M. Pham, Julie E. Mills, and Yan Zhuge

## **Distortional Buckling of Cold-Formed Steel Members**

Gustavo Monteiro de Barros Chodraui, Jorge Munaiar Neto, Roberto Martins Gonçalves, and Maximiliano Malite

## AISI TEST PROCEDURES APPROVED AS NATIONAL STANDARDS

The American Iron and Steel Institute (AISI) has developed a series of test procedures for cold-formed steel members, connections and assemblies over time. These test procedures are widely used by the industry and research institutes for determining strength, developing new products, and verifying design provisions. Recently, all the AISI test procedures have been approved by the American National Standards Institute (ANSI) as American National Standards.

The following is a complete list of the approved test procedures:

- Rotational-Lateral Stiffness Test Method for Beam-to-Panel Assemblies (AISI TS-1-2002)
- Stub-Column Test Method for Effective Area of Cold-Formed Steel Columns (AISI TS-2-2002)
- Standard Methods for Determination of Uniform and Local Ductility (AISI TS-3-2002)
- Standard Test Methods for Determining the Tensile and Shear Strength of Screws (AISI TS-4-2002)
- Test Method for Mechanically Fastened Cold-Formed Steel Connections (AISI TS-5-2002)
- Standard Procedures for Panel and Anchor Structural Tests (AISI TS-6-2004)
- Cantilever Test Method for Cold-Formed Steel Diaphragms (AISI TS-7-2002)
- Base Test Method for Purlins Supporting a Standing Seam Roof System (AISI TS-8-2004)
- Standard Test Method For Determining The Web Crippling Strength Of Cold-formed Steel Beams (AISI TS-9-2005)
- Test Method For Distortional Buckling Of Cold-formed Steel Hat Shaped Columns (AISI TS-10-2005)
- Method For Flexural Testing Cold-formed Steel Hat Shaped Beams (AISI TS-11-2005)
- Test Procedure For Determining A Strength Value For A Roof Panel-to-purlin-to-anchorage Device Connection (AISI TS-12-2005)

Test procedures AISI TS-1 to AISI TS-7 are published in the AISI Cold-Formed Steel Design Manual, 2002 edition. AISI TS-8 and AISI TS-9 have been revised in 2004 and 2005, and AISI TS-9 to AISI TS-12 are the newly developed test procedures. The revised and newly developed test procedures AISI TS-8 to TS-12 are available for order via at [www.steel.org](http://www.steel.org) as individual document.

## Calendar

**September 6, 7, & 8, 2006**  
International Colloquium on  
Stability and Ductility of Steel  
Structures (SDSS '06)  
Lisbon, Portugal  
<http://www.civil.ist.utl.pt/sdss>

**October 26 & 27, 2006**  
18th International Specialty  
Conference on Cold-Formed  
Steel Structures  
Orlando, FL  
[www.umn.edu/~ccfss](http://www.umn.edu/~ccfss)

**November 16-17, 2006**  
4th International Symposium on  
Steel Structures (ISSS)  
Seoul, Korea  
<http://kssc.or.kr/>  
[www.umn.edu/~ccfss](http://www.umn.edu/~ccfss)

**July 24, 25, 26, & 27, 2007**  
6th International Conference on  
Steel and Aluminum Structures  
(ICSAS '07)  
St. Catherine's College, Oxford,  
England  
[www.brookes.ac.uk/go/icsas07](http://www.brookes.ac.uk/go/icsas07)

**July 30, 31, & August 1, 2007**  
3rd International Conference on  
Steel and Composite Structures  
University of Manchester, UK  
[www.meeting.co.uk/confercare/  
icscs07](http://www.meeting.co.uk/confercare/icscs07)

### Wei-Wen Yu Textbook

The Third Edition of Cold-Formed Steel Design by Wei-Wen Yu is available at a discounted publishers price of \$100. The order form for this book can be accessed from the Center's website <http://www.umn.edu/~CCFSS>.

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## In Memorium



**Don S. Wolford**

Mr. Don S. Wolford passed away on April 10, 2006 at Messiah Village retirement community in Mechanicsburg, PA. at the age of 93.

Don was born on June 5, 1912 in Indianapolis, Indiana. In 1917, his family moved to Troy, Ohio where he graduated from Troy High School in 1930. He received his bachelor's degree in Mechanical Engineering from Ohio State University in 1934 and his ME in 1944. Upon leaving college, he accepted an engineering position at Waco Aircraft Company. In 1935, he was hired by the American Rolling Mill Company (later known as Armco, Inc.) research center located in Middletown Ohio. He retired in June 1977 as Principal Research Associate at Armco, Inc. During his long retirement after 1977, he produced separate genealogies for the Wise, Dell, Sixt, Wolford, Semler, and Marlatt families, tracing their migrations to the Midwest from Pennsylvania and New York where they first entered America from Europe. In this work, he utilized his long-time interest in photography to copy old photographs and tintypes, some dating back to the 1840s.

As a representative of the American Rolling Mill Company, Don joined in 1943 the original Technical Subcommittee of the AISI Committee on Building Codes. This Subcommittee supervised the research work on cold-formed steel structures which was conducted at Cornell University under the direction of the late Professor George Winter, and developed the first edition of the AISI *Specification for the Design of Light Gage Steel Structural Members*. Since 1944, Don continued to participate in the AISI Specification Committee for 50 years as a member and Chairman for the revision of eight editions of the AISI *Specification for the Design of Cold-Formed Steel Structural Members*, for the use of carbon and low alloy steel sheet, strip, plate, and flat bar in buildings and other structures.

In 1963, Don chaired the AISI Subcommittee to develop the first edition of the AISI *Specification for Design of Light Gage Cold-Formed Stainless Steel Structural Members* published in 1968. This Specification was revised in 1974

by AISI under Don's Chairmanship. It was subsequently updated to the ASCE Standards (ANSI/ASCE-8-90 and SEI/ASCE 8-02), under Don's Vice Chairmanship.

In addition to his outstanding contributions to the development of design specifications and standards, Don published numerous technical papers and articles. In 1954, he developed design formulas, curves, and tables for determining sectional properties of arc-and-tangent type of corrugated steel sheets. His ASTM Bulletin on Beam and Column Tests of Welded Steel Tubing with Design Recommendations was published in 1958. He also published ASCE journal paper on Steel Highway Accessory Structures, and was a co-author of the conference paper on Golden Anniversary of the AISI Specification published in the 1996 Proceedings of the International Specialty Conference on Cold-Formed Steel Structures. Don was also a contributor to Building Design and Construction Handbook and Standard Handbook for Civil Engineers, published by McGraw-Hill Book Company.

For professional activities, Don served as Chairman of the ASCE Committee on Cold-Formed Members from 1971 through 1974. He served as a member of the Planning Committee and Technical Session Chairman at the International Specialty Conference on Cold-Formed Steel Structures from 1971 through 1996.

Don was a Fellow of the American Society of Civil Engineers, a member of Theta Tau, a professional engineering fraternity. He served as Trustee of Bethlehem Lutheran Church of Middletown, Ohio, President of Middletown Camera Club and President of the Literary Critique Society of Southwestern Ohio. He was a registered engineer in the State of Ohio and was listed in several Who's Who publications.

Don was a role model and a kind gentleman. He will be sorely missed.



**Don Wolford (right) with George Winter in 1975.**