August 25 to 29, 2008
INTERNATIONAL ORTHOTROPIC BRIDGE CONFERENCE
SACRAMENTO, CALIFORNIA, USA
Hosted by American Society of Civil Engineers, Sacramento Section
The Orthotropic Bridge Tour includes the San Mateo Hayward, Golden Gate, and new San Francisco Oakland Bay Bridge Bridges

PROGRAM
TUESDAY, AUGUST 26, 2008

OPENING COMMENTS (8:15 - 8:30)

DESIGN - 1 (8:30 - 10:10)
OBC-08-01 — Design and Construction of the Orthotropic Steel Deck Bridge in Elin Pelin, Bulgaria
Doncho Partov and Rada Ivanov, VSU ‘Lyuben Karavelov’, Sofia, Bulgaria
OBC-08-02 — Orthotropic Steel Deck Bridges in Korea
Dong-Ho Choi, Yong-Sik Kim and Hoon Yoo, Hanyang University, Seoul, Korea
OBC-08-03 — The New Steel-and-Light Doorway for the City of Padua,
Roberto Zanon and Francesco Caobianco, NET Engineering, Monsefice, Italy

INTERMISSION - VENDOR ROOMS OPEN

DESIGN - 2 (10:40 - 11:55)
OBC-08-04 — Estimation of Compressive strength of Trapezoidal-Shaped Ribs in Orthotropic Decks
WanChun Jen and Ben T Yen, Jacobs Civil, Inc., New Jersey, USA
OBC-08-05 — The Slope Deflection Method for Orthotropic Bridge Decks
Hans, De Backer, Amelie Outier, Corneel Delesie and Philippe Van Bogaert; Ghent University, Gent, Belgium
OBC-08-06 — Analysis of Distress Characters and Design of Steel Orthotropic Bridge Decks Pavement in China
Wei Xu and Xiao-ning Zhang, South China University of Technology, Guangzhou, China

LUNCHEON KEYNOTE (11:55 - 13:30)
OBC-08-07 — We Shall Use No Technology Before Its Time
Charles Seim, Consultant, California, USA

MAINTENANCE AND REHABILITATION - 1 (13:30 - 15:10)
OBC-08-08 — Nondestructive Evaluation of Fatigue Cracks in Steel Bridges by Infrared Thermography
Yui Iaumi, Takahide Sakagami and Shiro Kuboand, Osaka University, Osaka, Japan; Takashi Tamakoshi, National Institute for Land & Infrastructure Management, Ibaraki, Japan
OBC-08-09 — A New Rehabilitation Method for Inside Corrosion of Stiffeners with Hollow Shape
KIRSTEN LATZ, WISMAR UNIVERSITY OF TECHNOLOGY, WISMAR, GERMANY
OBC-08-10 — Counter Measures against Fatigue Cracks on Orthotropic Bridge Decks of Tokyo Metropolitan Expressways
Kazuhito Tsuno and Yasumiki Yamamoto, Metropolitan Expressway Company Limited, Tokyo, Japan; Nobuaki Takiguchi, Japan Bridge Association, Tokyo, Japan
OBC-08-11 — HAZARD CLASSIFICATION FOR ORTHOTROPIC PLATES AND SUSTAINABLE REPAIR METHOD USING STEEL-ELASTOMER-STEEL SANDWICH (SPS)
Markus Feldmann and Achim Geßler, RWTH Aachen University, Aachen, Germany; Gerhard Sedlacek, and Michael Paschen, Sedlacek & Partner, Aachen, Germany

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MAINTENANCE AND REHABILITATION - 2 (15:45 - 17:00)
OBC-08-12 — A New Procedure and Device for the Examination of Stiffeners with Hollow Shape
Jens Hölterhoff, Wismar University of Technology, Wismar, Germany
OBC-08-13 — Redecking Issues For the Walt Whitman Bridge
Santo Camo, Qi Ye, Vijay Pandya and Richard Prior, Weidlinger Associates, Inc., New York, USA
OBC-08-14 — Enhancing the Fatigue Strength of Trough to Deck Plate Joint in Bridge Decks Using Ultrasonic Impact Treatment (UIT)
Henk Kolstein, Delft University of Technology, Delft, Netherlands; Robbert de Ridder, Applied Ultrasonics Europe, Netherlands; Frank van Dooren; Delft University of Technology, Delft, Netherlands

BANQUET KEYNOTE (18:30 - 20:00)
OBC-08-15 — Engineering - A Science or An Art?
Man-Chung Tang, TY Lin International, California, USA

WEDNESDAY, AUGUST 27, 2008

FATIGUE - 1 (8:30 - 10:10)
OBC-08-16 — Effect of Fabrication Procedure on Fatigue Resistance of Rib-to-Deck Welded Joints in Steel Orthotropic Bridge Decks
Chia-Ming Uang, Hyoung-Bo Sim, Univ. of California, San Diego, California, USA; Charles Sikorsky, California Department of Transportation, California, USA
OBC-08-17 — Bending Fatigue Tests on Trough to Deck Welded Details of Orthotropic Steel Deck
Samiol Ya, Kentaro Yamada and Toshiyuki Ishikawa; Nagoya University, Nagoya, Japan
OBC-08-18 — Fatigue Behaviour of Cutout in Crossbeam for Closed Rib Orthotropic Deck
OBC-08-19 — Fatigue Test Research on Detail of Orthotropic Deck Bridges in China
Yuling Zhang, China Academy of Railway Sciences, Beijing, China; Xuezdong Xin, China Railway Ministry, Beijing, China; Xiaoguang Liu, China Academy of Railway Sciences, Beijing, China

DESIGN – 3 (8:30 - 10:10)
OBC-08-38 — The Five-Point Bending Test: A Way to the Dimensioning of the Asphalt Layer on Steel Orthotropic Decks
Adrien Houel, CETE Lyon, Bron Cedex, France; Laurent Arnaud, ENTPTE, Vaulx-en-Velin cedex, France
OBC-08-41 — California’s New Orthotropic Steel Box Girder Suspension Bridges
Eugene Thimmndary, California Department of Transportation, California, USA

OBC-08-42 — Orthotropic Deck Design and Fabrication for Fatigue - Some Recommendations from Research
Xiaohua H. Cheng, New Jersey Department of Transportation, New Jersey, USA; Jun Murakoshi, Public Works Research Institute, Tsukuba City, Japan

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WEARING SURFACE - 1 (10:40 - 11:55)
OBC-08-23 — Research on Steel Fiber Reinforced Concrete Pavement on Orthotropic Steel Deck
Robert Gaul; ChemCo Systems, Inc., California, USA
OBC-08-25 — Reduction of Traffic Induced Stress Using Reinforced High Strength Concrete
Henk Kolstein, Delft University of Technology, Delft, Netherlands; Henk Sliedrecht, Ministry of Transport, Netherlands

LUNCHEON KEYNOTE (11:55 - 13:30)
OBC-08-26 — Review of the Fatigue Behaviours and Finite Element Analysis of Orthotropic Steel Bridge Decks
Chunsheng Wang, Yacheng Feng; Changan University, Shaanxi, China

OBC-08-27 — The Effect of Stiffener Distortion of Orthotropic Bridge Decks on Stress Concentrations and Load Dispersal Behaviour
Corneel Deloie, Hans De Baerck and Philippe Van Bogaert, Ghent University, Gent, Belgium
OBC-08-28 — Experimental Study on Durability of Orthotropic Steel Decks and Deckplate Thickness
M. Ishio and T. Tamakoshi, National Institute for Land & Infrastructure Management, Ibaraki, Japan; J. Murakoshi, Public Works Research Institute, Ibaraki, Japan; A. Kawabata, JFE Engineering Corporation, Yokohama, Japan
OBC-08-29 — Field Investigations and Measurements of Orthotropic Steel Decks to Draft Efficient Method of Stock Management
D. Uchida, Mitsui Engineering & Shipbuilding Co., Ltd., Tokyo, Japan

WEARING SURFACE - 2 (13:30 - 15:10)
OBC-08-31 — THE PLANNING AND DESIGN OF GWANGYANG SUSPENSION BRIDGE WITH EPOXY ASPHALT IN KOREA
Sang-Hoon Shin, Pi-Jo Yu, Do-Jun Baek, Yooshin Engineering Corp. Seoul, Korea; David H. Im; Cablebridge, Seoul, Korea
OBC-08-32 — Design of a Deck Surfacing for the Longest Cable-Stayed Bridge in the World: the Sutong Bridge
Yao Bo and Cheng Cheng; Southeast University, Nanjing, China
OBC-08-33 — Importance of Interface Layer on Behavior and Durability of Orthotropic Steel Decks
Sofia Teixeira de Freitas, M.H. Kolstein and F.S.K. Bijlaard, Delft University of Technology, Delft, Netherlands
OBC-08-34 — Concrete Overlays to Improve the Fatigue Life of Movable Orthotropic Steel Bridges
C.R. Braam, M.H. Kolstein and A. Romeijn, Delft University of Technology, Delft, Netherlands; P. Buitemaar, Contec ApS, Hejbjerg, Denmark

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MAINTENANCE AND REHABILITATION - 3 (15:45 - 17:00)
OBC-08-35 — Alternative Waterproof System and Wearing Course on Orthotropic Bridge Decks and Approaches
Doug Zuberer, Chase Construction Products, Massachusetts, USA
OBC-08-36 — Application of the Reinforced High Performance Concrete Overlay on Orthotropic Steel Bridge Decks
Peter Buitemaar, Contec ApS, Hejbjerg, Denmark; René Braam, Delft University of Technology, Delft, Netherlands;
OBC-08-37 — Estimation of the Wearing Course Influence on the Orthotropic Steel Bridge Deck Behavior from Simulations of the French Five-Point Bending Test
Simon Pouget, Cédric Sauzéat and Hervé Di Benedetto, Université de Lyon, aux-en-Velin, France; François Olard, EFFAGE Travaux Publics, Corbas Cedex, France

OTHER KEY ASCE OBC 2008 CONFERENCE EVENTS
August 28, 2008 Thurs [8 hours] Intro to new FHWA Orthotropic Bridge Manual [free to attendees]
August 29, 2008 Friday [8 hours] LFRD Highway Bridge Design Workshop
August 30, 2008 Saturday Orthotropic Bridge Tour [approximately 8 am to 9 pm]