

2017 National ABC Conference – Pre-Conference Workshops

W-07: Self-Propelled Modular Transporters for ABC – Trends, Challenges, and Future Activities

Wednesday, December 6, 2017 – 1:00 p.m. to 5:00 p.m.

Introduction:

For many reasons the use of self-propelled modular transporters (SPMTs) can be one of the most effective technologies for ABC. While their use in the U.S. continues to grow, opportunities exist to further utilize SPMTs. Hear from industry SPMT suppliers, owners, and the NCHRP principal investigator on trends, benefits, uses, procurement perspectives, and upcoming AASHTO code changes specific to SPMTs for highway bridges. Identification of industry knowledge gaps and needs will be discussed in parallel with national efforts that will be pursued to better educate and implement SPMTs into ABC projects for 2018 and beyond.

Workshop Organizer:

Benjamin Beerman, P.E.; Mary Lou Ralls, P.E., ABC-UTC

Program:

1:00 p.m.	Welcome and Introduction to Workshop	Moderator – David Garber, Ph.D., P.E.
1:05 p.m.	Owner Perspective on the Use of SPMTs to Move Bridge Spans	Carmen Swanwick, S.E.
1:20 p.m.	NCHRP 12-98: Dynamic Effects of SPMT Bridge Moves	Mike Culmo, P.E.
2:00 p.m.	Case Studies – Bridge Moves by Sarens	Steven Sarens
2:45 p.m.	<i>Break</i>	
3:00 p.m.	Case Studies – Bridge Moves by Barnhart	John Engberg, P.E.
3:45 p.m.	Case Studies – Bridge Moves by Burkhalter	Delynn Burkhalter / Michael Cassibry
4:30 p.m.	Look Ahead – Knowledge Gaps and Needs	Panel of Workshop Presenters
5:00 p.m.	Adjourn	

Speakers and Bios, W-07: SPMTs for ABC – Trends, Challenges, & Future Activities

David Garber, Ph.D., P.E., dgarber@fiu.edu (**Moderator**)

David is an Assistant Professor in the Civil and Environmental Engineering Department at Florida International University (FIU), Co-Director of the ABC-UTC housed at FIU, and Director of Workforce Development for the ABC-UTC. He has led several ABC-related research projects including: development of the ABC Project and Research Databases; evaluation of the state of bridge demolition administration in the US; and development of a short-span, prestressed concrete, ABC solution for FDOT. He has also organized and led several bridge-related summer activities for K-12 students and teachers.

Delynn Burkhalter, delynn@burkhalter.net

Delynn is CEO for Burkhalter, which is headquartered in Columbus, MS and has sales offices located in San Francisco Bay Area; Houston, TX; and Mobile, AL. In his 42 years, he has worked in operations and executive positions to provide complete solutions in engineered heavy lifting, rigging, crane rental and transportation business markets. Delynn is Past Chairman of the Specialized Carriers and Rigging Association. SC&RA represents companies throughout the world leading its groups through myriad issues. On his path to Chairmanship of this leading and globally recognized association, he was elected and served as Chairman of the Crane & Rigging Group, Board of Director, Treasurer, Vice President, President and ultimately Chairman. He has served as a judge on numerous SC&RA Rigging Jobs of the Year.

Michael Cassibry, mcassibry@burkhalter.net

Mike is the Director of Special Applications for Burkhalter Rigging. He received his BSME from Mississippi State University in 2009. Mike oversees heavy civil/bridge replacement projects from conceptual, estimating, proposals and operations kickoff to develop alternative solutions for complex projects. He utilizes Burkhalter's extensive fleet of SPMTs, gantry systems, jack up systems (world's tallest), strand jacks, etc., to provide clients with unique and cost-effective results. Mike has been the lead on many diverse bridge projects including the Galveston Bridge, Burkhalter's winner of the 2012 SC&RA Rigging Job of the Year and also the 7th Street Precast Network Arch Bridge (the world's first and only) in Fort Worth, TX. He is a leader in the industry for innovative design for installation and demolition of complex bridges.

Mike Culmo, P.E., culmo@cmeengineering.com

Mike is Vice President of Transportation and Structures with CME Associates, Inc. He has 34 years of experience in bridge and highway design. Mike has extensive experience in the design of steel, concrete, prestressed concrete and timber bridges, and has been responsible for directing a design team on new expressway bridges, bridge rehabilitation, and related highway structures. Prior to joining CME, he was employed for over thirteen years with the Connecticut Department of Transportation and, in his last position there, was the assistant State Bridge Engineer. Mike holds a Bachelor's degree in Civil Engineering and a Master's degree in Structural Engineering, both from the University of Connecticut. He is a licensed professional engineer in six states.

John Engberg, P.E., jengberg@barnhartcrane.com

John is the Engineering Project Services Manager at Barnhart Crane & Rigging, Co. in Memphis, TN. He has a BSCE with 13 years of experience in the construction industry, including six years in the

specialized rigging and heavy transport industry. John is involved in all aspects of project planning and execution, including initial concept development, determining appropriate design parameters, final project plan engineering packages, project-specific fabricated items, and operational risk management during field execution. He has worked on several ABC projects utilizing various construction methods including SPMT, SPMT-mounted gantry, lateral slide, and lateral rollers, as well as conventional mobile cranes. John is currently involved in the planning of the upcoming move of the 900-ton pedestrian bridge over 8th Street on the FIU campus.

Steven Sarens, Steven.Sarens@sarens.com

Steven is Director of Operations for the Sarens Group. He has a background in electrical and mechanical engineering. After serving in various operational and sales positions within the Sarens Group in its Belgium headquarters, Steven currently oversees North American operations from Sarens' regional headquarters in Houston, Texas. He has over 20 years of experience in the heavy lifting and heavy haul industry using SPMTs, cranes, jacking systems, sliding systems, strand jacks, lifting towers and alternative solutions. Steven has global experience and specializes in moving bridges over land and water – being involved in hundreds of bridge projects globally – with expertise ranging from initial design; conceptual phasing and budgeting; development of strategies and method statements; and detailed design, supervision, and management during actual project execution.

Carmen Swanwick, S.E., cswanwick@utah.gov

Carmen is Chief Structural Engineer for the Utah DOT and Chair of the American Association of State Highway and Transportation Officials (AASHTO) Technical Committee for Construction (T-4) under the AASHTO Committee on Bridges and Structures (CBS). She serves on several national bridge committees including the panels for NCHRP 12-98 (Recommended Guidelines for Prefabricated Bridge Elements and Systems Tolerances and Dynamic Effects of Bridge Moves) and NCHRP 12-102 (Recommended AASHTO Guide Specification for ABC Design and Construction), and is a member of the ABC-UTC Advisory Committee. Carmen has a BSCE and Master's Degree in structural engineering from the University of Utah. Prior to joining UDOT in 2009 she worked as a consultant on various fast-track high-profile design-build projects around the country.