

**Minutes**  
**Rigging Working Group**  
Friday 20 July 2018  
D/FW Marriott Solana  
Westlake, TX

**Presiding chairperson:** Bill Sapsis; Sapsis Rigging; P; U

**Recording secretaries:** Karl Ruling and Richard Nix; ESTA

**Members in attendance:**

Tracie Allen; Tyler Truss Systems; A; CP  
Matthew Antonucci; Contract Services Administration Trust Fund; O; U  
Dana Bartholomew; Silver State Wire Rope and Rigging; P; DR  
Bennett Brian; Reed Rigging Inc.; P; DR  
Jay Cid; R&M Materials Handling / Stagemaker; A; MP  
Dan Culhane; Wenger Corp.; A; CP  
Bruce Darden; InterAmerica Stage, Inc.; P; CP  
David Darland; PSAV Presentation Services; O; U  
Brad Dittmer; Stage Labor of the Ozarks; P; U  
Don Earl; Earl Girls, Inc.; P; DR  
Mike Garl; Mike Garl Consulting LLC; P; DE  
Ethan W Gilson; Entertainment Rigging Services, LLC; P; U  
William B. Gorlin; M.G. McLaren, P.C.; P; G  
Jerry Gorrell; Theatre Safety Programs; P; G  
Rod Haney; I.A.T.S.E. Local 891; P; U  
Tim Hansen; Oasis Stage Werks; P; DR  
Robert Haycock; UC Berkeley; I; U  
Jeremy Hodgson; Cirque Du Soleil, Inc.; P; U  
Joseph Jeremy; Show Distribution Group, Inc.; P; MP  
Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co., Inc.; P; DR  
Theresa Kelley; Xtreme Structures and Fabrication; A; CP  
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U  
Kyle Kusmer; Steven Schaefer Associates; P; G  
Kalen Larson; ZFX, Inc.; P; CP  
Roger Lattin; I.A.T.S.E. Local 728; P; U  
Jacob E. Loretto; Musson Theatrical Inc.; P; DR  
Daniel H. Louis; Theta Consulting LLC; P; G  
Bill McIntyre; Show Distribution Group, Inc.; A; CP  
Orestes Mihaly; Production Resource Group; P; DR  
Rick Montgomery; Motion Laboratories, Inc.; P; MP  
Bartholomew J. Mueller; Recreation Engineering Inc.; P; DE  
John Neal; John Neal; O; G  
Reid Neslage; H & H Specialties Inc.; P; MP  
Richard J. Nix; Richard J. Nix; I; G  
Shawn Nolan; Production Resource Group; A; DR  
Miriam Paschetto; Geiger Engineers; P; G  
Bill Sapsis; Sapsis Rigging, Inc.; P; U  
Steven Serafin; Chubb Group of Insurance Companies; P; G  
Stewart Stephens; JSAV; O; DR  
Peter V. Svitavsky; Wenger Corp.; P; CP  
Ken Tilson; Columbus McKinnon Corp.; P; MP  
Will Todd; Area Four Industries; P; MP  
Stephen Vanciel; IATSE Local 631; O; U  
Elmer Veith; Eurotruss; P; MP  
Steve Walker; Steve A. Walker & Associates; P; G

Mike Webb; Motion Laboratories, Inc.; A; MP  
R. Duane Wilson; Amer. Society of Theatre Consultants; P; DE  
Stephen Jon Wood; Tait Towers Manufacturing, Inc.;P; CP

## **1 Opening remarks**

Bill Sapsis called the meeting to order at 14:09, with a welcome statement, a comment on the weather, and a thanks to everyone who was present, in the room, and online.

## **2 Attendance and membership**

### **2.1 Introductions of those present and taking attendance**

Karl Ruling indicated the Yellow sign-in sheet, which was passed around the room.

Self-introductions were made by those present in the room, then online. Online attendees were verified by the secretaries, using the WebEx online session details.

### **2.2 Call for quorum**

*There are currently 61 possible votes. A quorum is 21; supermajority is 31.*

Bill Sapsis counted voters and announced that we have a quorum and a supermajority.

### **2.3 Requirements for membership**

Bill Sapsis read the following statement aloud to the assembly:

*Membership is open to all who are materially affected by the work of the group. People who would be in the designer interest group category are particularly encouraged to join. There is an annual \$100 participation fee for all members. Voting members are required to attend meetings and to vote on letter ballots. Any principal member and voting alternate who both miss three consecutive meetings or letter ballots will have their membership status changed to observer.*

### **2.4 Processing of new membership and change in status requests:**

*As of meeting time, the following applications or status change requests were received:*

Ethan Gilson; Entertainment Rigging Services, LLC; P; U (Change in representation)  
Theresa Kelley; Xtreme Structures & Fabrication; A; CP (Change in representation)  
Chris Moulton; Contract Services Administration Trust Fund (CSATF); A; G  
John Neal; Rhino Staging; O; G  
Bill McIntyre, Niscon Inc., Alternate, CP

Bill Sapsis reported receiving an email from Dan Lisowski, requesting a change to Observer status due to increased work load in his new position.

Mike Garl moved to approve the applications and Dan Lisowski's request. The motion was seconded, and approved by unanimous vote.

### **2.5 Changes of membership status due to lack of attendance**

*The following voters have missed the last two meetings and are in jeopardy of being moved to Observer status:*

Reid Neslage, H & H Specialties Inc.  
Keith Bohn, Keith Bohn  
Jacob E. Loretto, Musson Theatrical Inc  
Sanford P. Gilzow, Shur-Rig LLC  
Brad Dittmer, Stage Labor of the Ozarks  
Michael Wells, Xtreme Structures and Fabrication  
Mark Newlin, Xtreme Structures and Fabrication

Reid Neslage and Jacob Loretto were both present via WebEx. Brad Dittmer was present in-person. Neither Michael Wells nor Mark Newlin were present, but Theresa Kelley was present in-person, and was accepted as an Alternate voter representing Xtreme Structures. This protected their voting status.

Keith Bohn and Sanford Gilzow were not present, so their voting status was changed to that of Observer.

## 2.6 Consensus body

Name	Representing	Voting status	Int. cat.
William Bradburn	Aerial Arts, Inc.	P	U
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
Max A. Wilson	Applied Electronics	P	MP
Jon Lenard	Applied Electronics	A	MP
Will Todd	Area Four Industries	P	MP
Donald Hoffend_III	Avista Designs, LLC	P	G
Eric Rouse	Chicago Flyhouse	P	CP
Steven Serafin	Chubb Group of Insurance Companies	P	G
Jeremy Hodgson	Cirque Du Soleil, Inc.	P	U
Tom Lapp	Cirque Du Soleil, Inc.	A	U
Ken Tilson	Columbus McKinnon Corp.	P	MP
Nick Fleming	Columbus McKinnon Corp.	A	MP
Chris Moulton	Contract Services Administration Trust Fund	A	U
Don Earl	Earl Girls, Inc.	P	DR
Steven Ricks	Electronic Theatre Controls, Inc.	P	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Joseph Champelli	Entertainment Project Services, LLC	P	DE
Steven Michelman	Entertainment Project Services, LLC	A	DE
Ethan W Gilson	Entertainment Rigging Services, LLC	P	U
Elmer Veith	Eurotruss	P	MP
Charlie Weiner	Eurotruss	A	MP
John Ringelman	Freeman Companies	P	DR
Rocky Paulson	Freeman Companies	A	DR
Chris Schmidt	Freeman Companies	A	DR
Miriam Paschetto	Geiger Engineers	P	G
Ted Jones	Grand Stage	P	U
Reid Neslage	H & H Specialties Inc.	P	MP
Pat Grenfell	Hoist Sales & Service	P	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	P	U
Rod Haney	I.A.T.S.E. Local 891	P	U
Russ Dusek	I Weiss	P	MP

<b>Name</b>	<b>Representing</b>	<b>Voting status</b>	<b>Int. cat.</b>
Bruce Darden	InterAmerica Stage, Inc.	P	CP
Jonathan Deull	JSD Projects LLC	I	U
William Beautyman	Limelight Productions, Inc.	P	DR
William B. Gorlin	M.G. McLaren, P.C.	P	G
Mike Garl	Mike Garl Consulting LLC	P	DE
Rick Montgomery	Motion Laboratories, Inc.	P	MP
Mike Webb	Motion Laboratories, Inc.	A	MP
Marty Wesstrom	Mountain Productions Inc.	P	DR
Jacob E. Loretto	Musson Theatrical Inc.	P	DR
Tim Hansen	Oasis Stage Werks	P	DR
Orestes Mihaly	Production Resource Group	P	DR
Shawn Nolan	Production Resource Group	A	DR
Carlos Ortega	PSAV Presentation Services	P	U
Demian Purdy	PSAV Presentation Services	A	U
Sarah Gascoine	PSAV Presentation Services	A	U
Dave Sinkhorn	R&M Materials Handling / Stagemaker	P	MP
Jack Gallagher	R&M Materials Handling / Stagemaker	A	MP
Jay Cid	R&M Materials Handling / Stagemaker	A	MP
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Bennett Brian	Reed Rigging Inc.	P	DR
Richard J. Nix	Richard J. Nix	I	G
Jesse Adams	Rose Brand	P	DR
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Kyle Kusmer	Schaefer, Inc	P	G
Joseph Jeremy	Show Distribution Group, Inc.	P	MP
Bill McIntyre	Show Distribution Group, Inc.	A	CP
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
Brad Dittmer	Stage Labor of the Ozarks	P	U
Steve Walker	Steve A. Walker & Associates	P	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
Russell Solomon	Texas Scenic Company	A	DR
Jim Niesel	Theatre Projects Consultants, Inc.	P	DE
Jerry Gorrell	Theatre Safety Programs	P	G
John C. Snook	Thermotex Industries Inc.	P	CP
Sam Michael	Thern, Inc.	P	MP

Name	Representing	Voting status	Int. cat.
Jeff Wilkowski	Thern, Inc.	A	MP
Daniel H. Louis	Theta Consulting LLC	P	G
Jason Tello	Tyler Truss Systems	P	CP
Tracie Allen	Tyler Truss Systems	A	CP
Robert Haycock	UC Berkeley	I	U
Tracy Nunnally	Vertigo	P	CP
John P. Moore	Vertigo	A	CP
Ian Bevan	Walt Disney Parks & Resorts	P	U
Tyler Bland	Walt Disney Parks & Resorts	A	U
Peter V. Svitavsky	Wenger Corp.	P	CP
Dan Culhane	Wenger Corp.	A	MP
Paul Zagajeski	Wenger Corp.	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Theresa Kelley	Xtreme Structures and Fabrication	A	CP
Kalen Larson	ZFX, Inc.	P	CP
	<b>Total votes possible</b>	<b>61</b>	
	Votes by interest categories	9	CP
		5	DE
		13	DR
		9	G
		11	MP
		14	U

### 3 Approval of minutes from the previous meeting

See RIGmin03-2018.pdf.

Dan Culhane moved approval of the minutes. The motion was seconded, and carried by unanimous vote.

### 4 ESTA declarations

#### 4.1 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Bill Sapsis:

*ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.*

*Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at a ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.*

Richard Nix held up copies of the easy to read pamphlet. Nothing was revealed.

#### **4.2 Reading of the call for patents**

The following statement was read aloud to the assembly by Bill Sapsis:

*ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.*

*In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.*

Nothing was revealed.

#### **5 Approval of the agenda**

Dan Culhane moved to approve the agenda as written. The motion was seconded, and approved by unanimous vote.

#### **6 Old business**

##### **6.1 BSR E1.1 – 201x, wire rope ladders** (open for revision)

*See E1-1\_RevwSmmmary.pdf.*

*Task group members: Sandy Gilzow (Chair), Chris Schmidt, and Chris Kaiser*

*The public review ran from 16 March 2018 through 30 April 2018. One “Yes” vote was returned with no comments received. Next action?*

Chris Kaiser moved that we accept it as an ANS. The motion was seconded. A letter ballot will be issued to decide the question.

##### **6.2 BSR E1.2 - 20xx, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers** (Last published in 2012 – Open for revision)

*Task group members: Keith Bohn (Chair), Jason Tello, Will Todd, Jacob Abbott, Jerry Gorrell, Elmer Veith, and Mike Garl*

*Any news or action at this time?*

Elmer Veith reported that he had lunch with Keith Bohn, who said that he would have some progress to report for the October meeting.

##### **6.3 ANSI E1.4-1 - 2016, Entertainment Technology--Manual Counterweight Rigging Systems** (Revise, reaffirm, or withdrawal by 11 October 2021)

No news or action at this time.

##### **6.4 BSR E1.4-2 - 201x, Entertainment Technology—Statically Suspended Rigging Systems**

*Task group members: Bart Mueller (Chair) Ethan Gilson, Ted Jones, Jesse Adams, and Brad Dittmer.*

*Bart Mueller provided proposed comment resolutions and a revised draft of the document for discussion. (See BSR\_E1-4-2\_DRAFT\_PR1CmmntResols.pdf and BSRE 1.4-2DRAFT\_Rig2015-2023r4.pdf)*

Bill Gorlin had these additional comments on the comment resolutions and the revised draft:

(1) 3.3 “*planned load*” change to “*intended load*.” There was discussion of “intended load” as opposed to “working load limit.”

(2) Gorlin wants to include the text of E1.4-3 about risk assessment and risk reduction and put it into this standard. This would be to augment the “risk assessment” mentioned in 3.3 at the end.

(3) Clause 4.2.2.1.2 beam clamps:

Add “*Single flange beam clamps shall be reviewed by a qualified person considering single point failure hazard per section 3.8, as well as imbalanced loading of the supporting member.*” The consensus was to not make this change, because it is covered in 3.8.

(4) Clause 4.2.2.2.2. He asked why we are ruling out friction. He suggested we liberalize the restriction by adding “. . . *unless determined by a qualified person, using clamps rated for such use, and the installation is confirmed and accepted by a qualified person.*”

4.4.7.1.3 needs a period.

(5) A3.2 “. . . *structural loading and strength should be reviewed by a registered design professional.*”

Brad Dittmer pointed out an editorial error in the Notice and Disclaimer, and requested to strike the fragment of the third paragraph that is at the end of the second paragraph.

Steve Walker said that he was unhappy with the resolution to his comment #73: “4.5.4 Add *Individual track supports and anchors shall be capable of supporting a minimum load of 150 pound.*” This would fit best following 4.5.4.2.” The draft response is, “*Reject: 150 lbs is not reasonable for many smaller tracks.*”

There was discussion, but no definite text recommended to the task group. The recommendation was that the document be reviewed to see if Steve Walker's concern is addressed by text elsewhere.

## **6.5 BSR E1.4-3 - 201x, Entertainment Technology - Manually Operated Hoist Rigging Systems**

*Task group members:* Richard Nix and Sam Michael

*Proposed comment resolutions and a draft document revisions have been provided. Note that the task group has deferred two comment resolutions, 28 and 30, to the RWG for discussion. (See E1-4-3\_2ndReviewDRAFTResols.pdf and BSR\_E1-4-3-201x\_Rig-2015-2022r8.pdf).*

There was discussion about the desirability of consistency between the design philosophies used in E1.6 and E1.4.

Bruce Darden noted that the resolution to comment 10 was not satisfactory.

There was a poll whether electric drill power should be added to the manually powered hoist standard as a section of E1.4-3. During discussion Richard Nix noted that this question had been posed to the working group during prior comment resolution periods, and at that time the working group had voted to remove them from the scope. The consensus expressed in this poll was that electric drill power should be added.

## **6.6 BSR E1.6-1 - 201x, Entertainment Technology--Powered Hoist Systems** (last published in 2012--currently open for revision)

*Task group members:* Bruce Darden (chair), Chris Kaiser, Dan Culhane, Pete Svitavsky, Stephan Wood, Steve Ricks, Jim Niesel, Sandy Gilzow, Joe Champelli, and Steve Walker.

*Bruce Darden provided proposed comment resolutions and a revised draft of the document for discussion. (See E1-6-1\_DRAFT\_PR1CommentResols\_20180702.pdf and BSR\_E1-6-1\_Rig-2006-2011r8\_20180702.pdf)*

Bruce Darden moved that we accept the comment resolutions. The motion was seconded and then approved with a unanimous show of hands. With 39 voters present, this constituted a supermajority.

Bruce Darden moved that we send the revised standard for public review. The motion was seconded. Chris Kaiser pointed out numerous errors in the draft standard—punctuation, mistyped numbers, spelling errors, links that don't work. Steve Walker said that there were formatting inconsistencies, too. He argued that the issues should be resolved before we send the document to public review. Chris Kaiser noted that the removal of “times” in 6.6.1 needs to be implemented.

Bruce Darden changed the motion to be to send the document for public review after these changes are made. The modification of the motion was accepted by the person seconding the original motion. By a show of hands (in the room and on-line) the motion carried. There was one objection and no abstentions.

**6.7 BSR E1.6-2 - 20xx, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry** (last published in 2018 – Open for revision)

*Task group members:* Ken Tilson, John Ringleman, Ben Brian, Marty Westrom, Rick Montgomery, Chris Schmidt, Mike Weston, Sandy Gilzow, and Elmer Veith (Chair)

Elmer Veith reported that they need to get back to work. He noted that Herb Hart has retired, so he asked that Mike Weston be added to the task group. Bill Sapsis made it so.

**6.8 BSR E1.6-3 - 201x, The Use of Electric Chain Hoists in the Entertainment Industry** (Last published 2012 – Open for revision)

*Task group members:* John Ringleman, Ben Brian, Pat Grenfell, Nick Fleming, Charlie Weiner, Rod Haney, Mike Weston, Greg Williams and Elmer Veith (Chair)

*Task Group participant update:* Mike Weston has replaced Patrick Wallace. Any other news, updates or action?

Elmer Veith reported that Herb Hart has retired, and promised great things to happen in the near future.

**6.9 BSR E1.6-4 - 201x, Control of Electric Chain Hoists in the Entertainment Industry** (Last published in 2013 – Open for revision)

*Task group members:* Rick Montgomery, John Ringleman, Elmer Veith, Jim Hodgson, Steve Wood, Mike Webb, Joe Jeremy (chair).

Joe Jeremy reported that they had worked on this. The work in E1.64 will mesh with changes needed in E1.6-4 so he is recommending that E1.6-4 be held for those changes. The consensus was to do this.

**6.10 BSR E1.8 – 20xx, Entertainment Technology—Loudspeaker Enclosures Intended for Overhead Suspension—Classification, Manufacture and Structural Testing** (Last published in 2013 – Open for revision)

*Task group members:* Sandy Gilzow and Jim Niesel

*The public review ended 23 April 2018, and a review summary was distributed to the working group on 16 May 2018, see E1-8\_PublicReviewCommentSummary.pdf. Proposed comment resolutions have been submitted, see E1-8\_PublicReviewCommentDraftResolutions.pdf.*

Brad Dittmer moved that we accept the draft resolutions with the changes suggested by Steve Walker, which are:

Change resolution 2 for section 5.3.1.1 to:

*Reject. The manufacturer can validate the suspension hardware strength by any calculation method that complies with standard engineering practice. Alternately, the manufacturer may validate the hardware strength by testing per section 7.*

Change resolution 3 for section 7 to:



*Reject. Variations in material strength need to be addressed by a qualified person when developing the test methods in 7.1. Any variations between material lots need to comply with the repeatability requirements of 7.1.4 and 7.1.4.1.*

The motion was seconded and then approved unanimously, which was a supermajority.

The resolutions made no substantive changes to the proposed standard. Dan Culhane moved to accept E1.8 as an ANS. The motion was seconded. A letter ballot will be issued to decide the question.

**6.11 ANSI E1.15 - 2006 (R2016), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies** (revision, reaffirmation, or withdrawal by 23 September 2021)

There was nothing to report. No action taken

**6.12 BSR E1.21 - 20xx, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events** (originally published 19 December 2013 – open for revision)

*Task group members:* Richard Nix (Chair), Kyle Kusmer, Miriam Paschetto, Bill Gorlin, Dan Louis, Steve Serafin, Elmer Veith, Sandy Gilzow, and Rod Haney

Richard Nix reported that task group discussion on the primary issue of permissible design load reductions continues. Some people are opposed to increasing the reliance on timely human intervention to avoid catastrophe.

**6.13 ANSI E1.22 - 2016, Entertainment Technology - Fire Safety Curtain Systems** (Revise, reaffirm, or withdrawal by 11 October 2021)

*Any news or action at this time?*

There was nothing to report. No action taken.

**6.14 ANSI E1.39 - 2015, Entertainment Technology –Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry** (Revision, reaffirmation, or withdrawal by 28 January 2020)

*Any news or action at this time?*

There was nothing to report. No action taken.

**6.15 ANSI E1.43 - 2016, Live performer flying effect standard** (Revise, reaffirm, or withdrawal by 12 February 2021)

*Any news or action at this time?*

There was nothing to report. No action taken.

**6.16 ANSI E1.44 – 2014, Common Show File Exchange Format for Entertainment Industry Automation Control Systems -- Stage Machinery** (revision, reaffirmation, or withdrawal by 6 February 2019)

*Any news or action at this time? There are two meeting cycles left before action is required.*

Joseph Jeremy said that he was not aware of anyone using this. Bill Sapsis directed Joseph Jeremy to convene the task group for the purpose of recommending some action for the next meeting.

**6.17 Rigging Glossary**

*Any news or action at this time?*

Christine Kaiser reported that the task group was still on hiatus. There are no updates to report.

## **6.18 BSR E1.47 – 20xx, Recommended Guidelines for Entertainment Rigging System Inspections**

(Originally published on 28 April 2017 – open for revision)

*Task group members:* Bart Mueller, Chris Kaiser (chair), Tracy Nunally, Ted Jones, Duane Wilson, Pete Svitavsky, Eric Rouse, Ian Bevan, Russell Solomon

*At the March meeting Chris Kaiser reported progress. Any news or action at this time?*

Chris Kaiser reported that she had recently communicated with the task group participants, asking them how they might move forward. She reported making no promises of great things to happen in the near future.

## **6.19 ANSI E1.50-1 – 2017, Requirements for the Structural Support of Temporary LED, Video & Display Systems** (Revision, reaffirmation, or withdrawal by 14 August 2022)

*Any news or action at this time?*

There was nothing to report.

## **6.20 BSR E1.56, Rigging Support Points Design, Fabrication, Installation, and Testing**

*Task group members:* Carlos Ortega (Chair), Demian Purdy, Mike Wells, Shawn Nolan, Jonathan Duell, and Chris Schmidt

*Public review ended 10 April 2018, and a summary was sent to the Working Group (see E1-56\_PublicReviewSummary.pdf). One “Yes” vote was returned with no comments received. Next action?*

Shawn Nolan reported. He moved that we accept the draft as an American National Standard. The motion was seconded, and will be decided by letter ballot.

## **6.21 BSR E1.59 – 20xx, Automation Vector Transmission Protocol**

*Task group members:* [RWG] Jem Hodgson, Joe Jeremy, Jim Love, and Michael Lichter.  
[CPWG] Julian Hoare, Roger Lattin, Scott Blair, Dan Murfin, Kevin Loewen, and Rich Dionne

*The task group expected to meet on the Saturday following the last RWG meeting. Any news or action at this time?*

Joseph Jeremy reported that they had met for 15 minutes, but did not have the document. Dan Lisowski has had to step back from active participation, but he has said he would hand off the documents to his successors.

## **7 New business**

### **8 Other business and announcements**

#### **8.1 BSR E1.64 --201x, Stage machinery controls**

Joseph Jeremy reported that the task group has met and work is being done. The task group has identified primary areas for inclusion in the document, and will begin writing soon.

#### **8.2 Above & Beyond Awards**

*The nomination site is open year round at [estalink.us/aboveandbeyond](http://estalink.us/aboveandbeyond).*

#### **8.3 CEN standards update**

Karl Ruling and Bill Sapsis both reported on current status of CEN project to turn CWA 25 into EN standards.

#### **8.4 Investors in Innovation**

No news.

## **9 Schedule for future meetings**

Sapsis noted that the full meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>.

### **9.1 October meetings**

Sapsis announced that the October meetings are scheduled to be held 05-07 October 2018, here at the D/FW Marriott Solana in Westlake, TX. The RWG meeting is scheduled for Saturday, 06 October 2018, 19:00 to 23:00.

### **9.2 January meetings**

The January meetings will be held In Anaheim as part of the Winter NAMM show, 24-27 January 2019. The RWG meeting is tentatively scheduled for Friday, 25 January 2019, from 19:00 to 23:00 at the Sheraton Park Hotel.

### **10 Adjournment**

Bruce Darden moved we adjourn. Hearing no objections, Bill Sapsis declared the meeting adjourned at 17:04.

RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
Jacob Abbott	PSAV Presentation Services	O	U
Jesse Adams	Rose Brand	P	DR
Tracie Allen	Tyler Truss Systems	A	CP
Matthew Antonucci	Contract Services Administration Trust Fund	O	U
Brent Armstrong	Alpine Rigging & Structural Design	O	CP
William Ian Auld	Auld Entertainment	O	U
Robert Barbagallo	Solotech Inc.	O	DR
Roger Barrett	Star Events Group Ltd.	O	DR
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
William Beautyman	Limelight Productions, Inc.	P	DR
Ian Bevan	Walt Disney Parks & Resorts	P	U
Roy Bickel	Roy Bickel	O	G
Tyler Bland	Walt Disney Parks & Resorts	A	U
Keith Bohn	Keith Bohn	O	G
David Bond	Kinesys	O	MP
William Bradburn	Aerial Arts, Inc.	P	U
Louis Bradfield	Louis Bradfield	O	U
Bennett Brian	Reed Rigging Inc.	P	DR
David M. Campbell	Geiger Engineers	O	G
Joseph Champelli	Entertainment Project Services, LLC	P	DE
Jay Cid	R&M Materials Handling / Stagemaker	A	MP
Daniel J. Clark	Clark-Reder Engineering, Inc.	O	G
Benjamin Cohen	Chicago Flyhouse Inc.	O	CP
David Collette	PSAV Presentation Services	O	U
Dan Culhane	Wenger Corp.	A	CP
Bruce Darden	InterAmerica Stage, Inc.	P	CP
David Darland	PSAV Presentation Services	O	U

RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
Robert Dean	ZFX, Inc.	O	CP
Jonathan Deull	JSD Projects LLC	I	U
Jim Digby	Event Safety Alliance	O	U
Brad Dittmer	Stage Labor of the Ozarks	P	U
Russ Dusek	I Weiss	P	MP
Don Earl	Earl Girls, Inc.	P	DR
Nick Fleming	Columbus McKinnon Corp.	A	MP
Tim Franklin	Theta Consulting LLC	O	G
Jack Gallagher	R&M Materials Handling / Stagemaker	A	MP
Mike Garl	Mike Garl Consulting LLC	P	DE
James M. Garner	Walt Disney Studios	O	G
Sarah Gascoine	PSAV Presentation Services	A	U
Ethan W Gilson	Entertainment Rigging Services, LLC	P	U
Sanford P. Gilzow	Shur-Rig LLC	O	G
William B. Gorlin	M.G. McLaren, P.C.	P	G
Jerry Gorrell	Theatre Safety Programs	P	G
Michael P. Gosenski	Rigging Systems LLC	O	U
Erin Grabe	ESTA	exf	G
Pat Grenfell	Hoist Sales & Service	P	DR
Rod Haney	I.A.T.S.E. Local 891	P	U
Tim Hansen	Oasis Stage Werks	P	DR
Pete Happe	Pete Happe	O	G
Sean Harding	Port Lighting Systems	O	G
Robert Haycock	UC Berkeley	I	U
Chris Higgs	Total Solutions Group	O	G
Jeremy Hodgson	Cirque Du Soleil, Inc.	P	U
Donald Hoffend_III	Avista Designs, LLC	P	G

RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
Joseph Jeremy	Show Distribution Group, Inc.	P	MP
Ted Jones	Grand Stage	P	U
Kent H. Jorgensen	IATSE Local 80	O	G
Gary Justesen	Oasis Stage Werks	O	DR
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Theresa Kelley	Xtreme Structures and Fabrication	A	CP
Jerald Kraft	JTH Lighting Alliance	O	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Kyle Kusmer	Steven Schaefer Associates	P	G
Tom Lapp	Cirque Du Soleil, Inc.	A	U
Kalen Larson	ZFX, Inc.	P	CP
Roger Lattin	I.A.T.S.E. Local 728	P	U
Jon Lenard	Applied Electronics	A	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Dan Lisowski	University of Wisconsin - Madison	O	U
Ross Long	I.A.T.S.E. Local 891	O	G
Jacob E. Loretto	Musson Theatrical Inc.	P	DR
Daniel H. Louis	Theta Consulting LLC	P	G
Wendy Manson	Cirque Du Soleil, Inc.	O	U
Joseph McGeough	Foy Invenerprises, Inc.	O	CP
Bill McIntyre	Show Distribution Group, Inc.	A	CP
Sam Michael	Thern, Inc.	P	MP
Steven Michelman	Entertainment Project Services, LLC	A	DE
Orestes Mihaly	Production Resource Group	P	DR
Rick Montgomery	Motion Laboratories, Inc.	P	MP
John P. Moore	Vertigo	A	CP
Chris Moulton	Contract Services Administration Trust Fund	A	U

RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
John Neal		O	G
Reid Neslage	H & H Specialties Inc.	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Jim Niesel	Theatre Projects Consultants, Inc.	P	DE
Richard J. Nix	Richard J. Nix	I	G
Richard J. Nix	ESTA	exf	G
Shawn Nolan	Production Resource Group	A	DR
Tracy Nunnally	Vertigo	P	CP
Carlos Ortega	PSAV Presentation Services	P	U
Gregory Orth	WNP Services, Inc.	O	DR
Miriam Paschetto	Geiger Engineers	P	G
Rocky Paulson	Freeman Companies	A	DR
Kurt Pragman	Pragman Associates, LLC	O	G
Demian Purdy	PSAV Presentation Services	A	U
Steven Ricks	Electronic Theatre Controls, Inc.	P	MP
Mark Riddlesperger	LA ProPoint, Inc.	O	CP
John Ringelman	Freeman Companies	P	DR
Eric Rouse	Chicago Flyhouse	P	CP
Karl G. Ruling	ESTA	exf	G
Tim Salamon	PSAV Presentation Services	O	DR
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services, Inc.	O	DE
Chris Schmidt	Freeman Companies	A	DR
Jason Schumacher	ZFX, Inc.	O	CP
Ford Sellers	Chauvet Lighting	O	MP
Steven Serafin	Chubb Group of Insurance Companies	P	G

RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
Steven C. Shaw	Levitating Productions, Inc.	O	MP
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Dave Sinkhorn	R&M Materials Handling / Stagemaker	P	MP
Monica Skjonberg	Skjonberg Controls, Inc.	O	CP
Knut Skjonberg	Skjonberg Controls, Inc.	O	CP
John C. Snook	Thermotex Industries Inc.	P	CP
Russell Solomon	Texas Scenic Company	A	DR
Todd Spencer	PSAV Presentation Services	O	U
Stewart Stephens	JSAV	O	DR
Peter V. Svitavsky	Wenger Corp.	P	CP
Ross Taylor	Taylor & Taylor Associates	O	G
Jason Tello	Tyler Truss Systems	P	CP
Ken Tilson	Columbus McKinnon Corp.	P	MP
Will Todd	Area Four Industries	P	MP
James Tomlinson	Team Tomlinson	O	G
Stephen Vanciel	IATSE Local 631	O	U
Elmer Veith	Eurotruss	P	MP
Steve Walker	Steve A. Walker & Associates	P	G
Patrick Wallace	PSAV Presentation Services	O	U
Mike Webb	Motion Laboratories, Inc.	A	MP
Charlie Weiner	Eurotruss	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Drew Wending	PSAV Presentation Services	O	DR
Marty Wesstrom	Mountain Productions Inc.	P	DR
Mike Weston	PSAV Presentation Services	O	DR
Jeff Wilkowski	Thern, Inc.	A	MP
Greg Williams	PSAV Presentation Services	O	G



RWG membership 25 July 2018

Delegate	Representng	Voting status	Int. cat.
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
Max A. Wilson	Applied Electronics	P	MP
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
Nicholas Gill Wright	I.A.T.S.E. Local 16	O	G
Jeong Sik Yoo	Ghost LX	O	DE
Paul Zagajeski	Wenger Corp.	A	CP

**Voting status key:** P = Principal voter, A = Alternate voter, I = Individual voter, O = Observer member, exf = Ex Officio member (staff)

**Interest Category Key:** CP = Custom-market producer, DE = Designer, DR = Dealer or rental company, G = General interest, MP = Mass-market producer, U = User

RWG email reflector list as of 25 July 2018

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- **BSR E1.2 – 201x, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers**  
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- **BSR E1.6-2 - 20xx, Entertainment Technology--Design, Inspection, and Maintenance of Electric**

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