

Minutes
Rigging Working Group
Tuesday, 18 January 2022
11:00 – 13:00 Eastern Time
via WebEx

Chairperson(s):

Chris Kaiser; Syracuse Scenery & Stage Lighting Co., Inc. (presiding)

Recording secretaries:

Karl Ruling and Richard Nix (ESTA)

Attendees:

Allen Winzler; Entertainment and Rigging Engineering; P; DE
Bartholomew J. Mueller; Recreation Engineering Inc.; P; DE
Bennett Brian; Reed Rigging Inc.; P; DR
Brent Armstrong; Alpine Rigging & Structural Design; P; CP
Bruce Darden; InterAmerica Stage, Inc.; P; CP
Chris Schmidt; Freeman Companies; A; DR
Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co., Inc.; P; DR
Cole Muth; Electronic Theatre Controls, Inc.; A; MP
Dana Bartholomew; Silver State Wire Rope and Rigging; P; DR
Daniel H. Louis; Theta Consulting LLC; P; G
David Boevers; Carnegie Mellon University; P; DE
Don Earl; Earl Girls, Inc.; P; DR
Ed Leahy; Chicago Flyhouse, Inc; P; CP
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Elmer Veith; Reliable Design Services; P; CP
Eric Rouse; Entertainment Project Services, LLC; P; CP
Ethan W Gilson; Entertainment Rigging Services, LLC; P; U
Frederic Caron; Frederic Caron; O; U
Gert Jan Brouwer; Frontline Rigging & Motion B.V.; P; CP
Ian Bevan; Walt Disney Company; P; DE
Jay Cid; R&M Materials Handling / Stagemaker; P; MP
Jeffrey M. Reder; Clark-Reder Engineering, Inc.; P; G
Jeremy Hodgson; Jeremy Hodgson; I; G
Jerry Gorrell; Theatre Safety Programs; P; G
Jesse Adams; Rose Brand Wipers, Inc; P; DR
Jim Niesel; Theatre Projects Consultants, Inc.; P; DE
Joe Golden; Gallagher Staging & Productions; P; DR
John Ringelman; Freeman Companies; P; DR
Jon Lenard; Applied Electronics; A; MP
Jonathan Deull; JSD Projects LLC; P; U
Joseph Jeremy; Show Distribution Group, Inc.; P; CP
Karl G. Ruling; ESTA; exf; G
Ken Tilson; Columbus McKinnon Corp.; P; MP
Kyle Kusmer; Steven Schaefer Associates, Inc; P; DE
Lee Chuong; Walt Disney Company; A; DE
Luke Ricca; Luke Ricca; O; G
Matt Jordan; Production Resource Group; A; DR
Max A. Wilson; Applied Electronics; P; MP
Michael Lichter; Electronic Theatre Controls, Inc.; A; MP
Michael Wells; Xtreme Structures and Fabrication; P; MP
Mike Skinner; Contract Services Administration Trust Fund; P; U
Miriam Paschetto; Geiger Engineers; P; DE
Nathan Villines; Tyler Truss Systems; P; MP
Neil Montour; Atlanta Rigging Systems; P; DR
Orestes Mihaly; Production Resource Group; P; DR
Pat Grenfell; Hoist Sales & Service; P; DR
Patrick Bash; In-House Production; P; DR
Paul "Luke" Lewkowicz; Paul E Lewkowicz PC; O; DE
Peter A. Scheu; Scheu Consulting Services, Inc.; O; DE

Peter V. Svitavsky; Wenger Corp.; P; CP
Peter W. Batt; Mainstage Theatrical Supply, Inc; P; DR
Quinten James; Flying By Troy; O; U
R. Duane Wilson; Amer. Society of Theatre Consultants; P; DE
Reid Neslage; H & H Specialties Inc.; P; MP
Richard J. Nix; Richard J. Nix; I; G
Richard J. Nix; ESTA; exf; G
Rick Montgomery; Motion Laboratories, Inc.; P; MP
Robert Dean; ZFX, Inc.; P; CP
Rod Haney; I.A.T.S.E. Local 891; P; U
Ryan Kunkel; Tait Towers Manufacturing LLC; A; CP
Ryan Riordan; Accurate Staging, Inc.; P; CP
Ryan Roby; Ryan Roby; O; U
Sam Michael; Thern, Inc.; P; MP
Siobhan Gee; Siobhan Gee; I; G
Stefan Pries; NEP Live Events; P; DR
Stephan Jon Wood; Tait Towers Manufacturing LLC; P; CP
Steve Walker; Steve A. Walker & Associates; P; G
Steven Serafin; The Hartford Group; P; G
Stewart Stephens; S2 Technologies; P; G
Ted Jones; Grand Stage; P; U
Theresa Lovell; Xtreme Structures and Fabrication; A; MP
Thomas Cowdery; Thomas Cowdery; I; U
Tim Hansen; Oasis Stage Werks; P; DR
Tracy Nunnally; Vertigo; P; CP
Will Todd; Area Four Industries; P; MP
Zhou Jianzhao; Guangzhou Haoyang Electronic Co., Ltd.; P; CP

1 Opening Remarks

Chris Kaiser called the meeting to order at 11:01, wishing everyone a good morning.

2 Patent and anti-trust statements

2.1 Reading of the anti-trust statement

Chris Kaiser read the following statement aloud to the assembly:

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 an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

Karl Ruling held up the pamphlet in front of his camera for all video enabled attendees to see.

2.2 Reading of the call for patents

Chris Kaiser read the following statement aloud to the assembly:

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 protected 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.

3 Attendance and Membership

3.1 Requirements for membership

Chris Kaiser read the following statement aloud to the assembly:

Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement, but there is a \$100/person/year participation fee to help fund the costs of running the Technical Standards Program. Voting members are required to attend meetings and vote on letter ballots. Any principal member and alternate that both miss three consecutive meetings or that miss three consecutive letter ballots will have their membership status changed to observer. This action will be taken at the beginning of the first meeting after such inaction and will be recorded in the minutes of that meeting.

3.2 Introduction of attendees

3.3 Determination of a quorum

(There are 69 voting entities. A quorum is 24, a supermajority is 35.)

Richard Nix confirmed that the quorum, and supermajority, requirements were both met.

3.4 Processing of new membership and status change requests

The following applications or status change requests have been received:

*Shawn Nolan; Clark-Reder Engineering; A; G
Jianzhao Zhou; Guangzhou Haoyang Electronic Co., Ltd; P; CP
Jim Neisel; Theatre Projects Consultants Inc; P; DE (status change request)
R Duane Wilson; ATSC; P; DE (status change request)*

Tim Hansen moved to approve the applications and status change requests. The motion was seconded, and carried without objection or abstention.

3.5 Changes to observer status due to lack of attendance or missed letter ballots

3.5.1 Attendance notices

The following voters have missed two consecutive meetings, and their status will be changed to that of Observer if this meeting is missed:

*Brent Armstrong; Alpine Rigging & Structural Design
Joe Golden; Gallagher Staging & Productions
Miriam Paschetto; Geiger Engineers
Dana Bartholomew; Silver State Wire Rope and Rigging*

All were present, so no changes were necessary.

3.5.2 Letter ballot notices

The following voters have missed the last two letter ballots and will be moved to Observer status if the next letter ballot is missed.

There are none.

3.5.3 Automatic status changes occurring before this meeting

The following automatic status changes have occurred since the last meeting.

There are none.

3.6 Consensus body

The consensus body resulting from today's working group meeting's actions is as follows:

Delegate	Representing	Voting status	Int. category
Ryan Riordan	Accurate Staging, Inc.	P	CP
Brent Armstrong	Alpine Rigging & Structural Design	P	CP
Max A. Wilson	Applied Electronics	P	MP
Jon Lenard	Applied Electronics	A	MP
Will Todd	Area Four Industries	P	MP
Keith Bohn	Area Four Industries	A	MP
Neil Montour	Atlanta Rigging Systems	P	DR
R Duane Wilson	Amer Society of Theatre Consultants	P	DE
David Boevers	Carnegie Mellon University	P	DE
Ed Leahy	Chicago Flyhouse, Inc	P	CP
Jeffrey M. Reder	Clark-Reder Engineering, Inc.	P	G
Shawn Nolan	Clark-Reder Engineering, Inc;	A	G
Ken Tilson	Columbus McKinnon Corp.	P	MP
Nick Fleming	Columbus McKinnon Corp.	A	MP
Mike Skinner	Contract Services Administration Trust Fund	P	U
Chris Moulton	Contract Services Administration Trust Fund	A	U
Jordi Van Berkum	Cybermotion North America	P	DR
Tyler DeLong	DeLong Rigging Solutions	P	U
Don Earl	Earl Girls, Inc.	P	DR
Steven Ricks	Electronic Theatre Controls, Inc.	P	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Cole Muth	Electronic Theatre Controls, Inc.	A	MP
Allen Winzler	Entertainment and Rigging Engineering	P	DE
Eric Rouse	Entertainment Project Services, LLC	P	CP
Joseph Champelli	Entertainment Project Services, LLC	A	CP
Joshua "Fritz" Friedensohn	Entertainment Project Services, LLC	A	CP
Ethan W Gilson	Entertainment Rigging Services, LLC	P	U
John Ringelman	Freeman Companies	P	DR
Chris Schmidt	Freeman Companies	A	DR
Gert Jan Brouwer	Frontline Rigging & Motion B.V.	P	CP
Joe Golden	Gallagher Staging & Productions	P	DR
Miriam Paschetto	Geiger Engineers	P	DE
Ted Jones	Grand Stage	P	U
Jianzhao Zhou	Guangzhou Haoyang Electronic Co., Ltd;	P	CP
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
Rod Haney	I.A.T.S.E. Local 891	P	U

Delegate	Representing	Voting status	Int. category
Ross Long	I.A.T.S.E. Local 891	A	U
Patrick Bash	In-House Production	P	DR
Bruce Darden	InterAmerica Stage, Inc.	P	CP
Drew Becker	InterAmerica Stage, Inc.	A	CP
Jeremy Hodgson	Jeremy Hodgson	I	G
Jonathan Deull	JSD Projects LLC	P	U
William B. Gorlin	M.G. McLaren, P.C.	P	G
Peter W. Batt	Mainstage Theatrical Supply, Inc	P	DR
Mike Garl	Mike Garl Consulting LLC	P	DE
Rick Montgomery	Motion Laboratories, Inc.	P	MP
Mike Webb	Motion Laboratories, Inc.	A	MP
Michael Shaw	Motion Laboratories, Inc.	A	MP
Stefan Pries	NEP Live Events	P	DR
Tim Hansen	Oasis Stage Werks	P	DR
Orestes Mihaly	Production Resource Group	P	DR
Troy Atkinson	Production Resource Group	A	DR
Matt Jordan	Production Resource Group	A	DR
Jay Cid	R&M Materials Handling / Stagemaker	P	MP
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Bennett Brian	Reed Rigging Inc.	P	DR
Elmer Veith	Reliable Design Services	P	CP
Matt Panther	Reliable Design Services	A	CP
Richard J. Nix	Richard J. Nix	I	G
Jesse Adams	Rose Brand Wipers, Inc	P	DR
Stewart Stephens	S2 Technologies	P	G
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Joseph Jeremy	Show Distribution Group, Inc.	P	CP
Bill McIntyre	Show Distribution Group, Inc.	A	CP
Sanford P. Gilzow	Shur-Rig LLC	P	G
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
Siobhan Gee	Siobhan Gee	I	G
Brad Dittmer	Stage Labor of the Ozarks	P	U
Steve Walker	Steve A. Walker & Associates	P	G
Kyle Kusmer	Steven Schaefer Associates, Inc	P	DE
Mike Merz	Steven Schaefer Associates, Inc	A	DE
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Jason Tello	T6 Truss Designs. LLC	P	CP

Delegate	Representing	Voting status	Int. category
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
David Bond	Tait Towers Manufacturing LLC	A	CP
Ryan Kunkel	Tait Towers Manufacturing LLC	A	CP
Tony Diemont	Texas Scenic Company	P	DR
Russell Solomon	Texas Scenic Company	A	DR
Steven Serafin	The Hartford Group	P	G
Jim Neisel	Theatre Projects Consultants Inc;	P	DE
Jerry Gorrell	Theatre Safety Programs	P	G
Sam Michael	Thern, Inc.	P	MP
Jeff Wilkowski	Thern, Inc.	A	MP
Paul Brunner	Thern, Inc.	A	MP
Daniel H. Louis	Theta Consulting LLC	P	G
Thomas Cowdery	Thomas Cowdery	I	U
Troy Trinkle	Troy Trinkle, LLC	P	CP
Nathan Villines	Tyler Truss Systems	P	MP
Bill Edwards	Tyler Truss Systems	A	MP
Josh Conner	Tyler Truss Systems	A	MP
Todd Spencer	Ventana Capital Investments, LLC	P	G
Tracy Nunnally	Vertigo	P	CP
John P. Moore	Vertigo	A	CP
Ian Bevan	Walt Disney Company	P	DE
Lee Chuong	Walt Disney Company	A	DE
Peter V. Svitavsky	Wenger Corp.	P	CP
Dan Culhane	Wenger Corp.	A	CP
Paul Zagajeski	Wenger Corp.	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Theresa Lovell	Xtreme Structures and Fabrication	A	MP
Robert Dean	ZFX, Inc.	P	CP
	Total votes possible		72
Votes by interest category	Custom market producer (CP)		15
	Mass market producer (MP)		10
	Dealer or rental company (DR)		16
	User (U)		10
	General interest (G)		12
	Designer (DE)		9

4 Approval of the minutes from the last meeting

[See RWGmin09-2021_DRAFT.pdf]

Elmer Veith moved to approve the agenda. The motion was seconded. The motion carried without objection or abstentions.

5 Approval of agenda

Jesse Adams moved to approve the minutes. The motion was seconded and carried without objection or abstentions.

6 Old Business

6.1 ANSI E1.1 – 2018, Wire Rope Ladders (Reaffirm, revise, or withdraw by 27 September 2023)

6.2 ANSI E1.2 - 2021, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers (Reaffirm, revise, or withdraw by 06 May 2026).

6.3 BSR E1.4-1 - 202x, Entertainment Technology--Manual Counterweight Rigging Systems (Open for revision) *Task group members:* Richard Nix (Leader), Bruce Darden, Dan Culhane, Eric Rouse, Jim Niesel, Pat Grenfell, Peter Batt, Peter Scheu, Reid Neslage, Sam Michael, Ted Jones
[See [BSR_E1_4-1-202x_2014-2029r8a.pdf](#) and [BSR_E1.4-1-202x_PR1_Cmmnt_Resols_DRAFT.pdf](#)]

The task group has returned proposed public review comments and a revised draft for the working group's consideration.

Richard Nix moved to accept the proposed comment resolutions. The motion was seconded.

Steve Walker expressed concern for the proposed resolution to comment 3. There was discussion, resulting in a small change to the draft standard's text, and a simplified comment resolution, as follows:

Accept in principle. Change the first sentence of the clause to state, "When attaching blocks to non-metallic materials, the anchorage method shall be approved by a qualified person..."

Richard Nix amended the motion to include the revised comment resolution. The motion carried unanimously.

Richard Nix moved to accept the draft as revised per today's working group's discussion. The motion was seconded and carried unanimously.

Richard Nix then moved to send the revised draft to second public review. The motion was seconded and carried without objection or abstentions. A BSR8 will be filed with ANSI.

6.4 ANSI E1.4-2 - 2021, Entertainment Technology—Statically Suspended Rigging Systems (Reaffirm, revise, or withdraw by 06 May 2026.)

6.5 ANSI E1.4-3 - 2020, Entertainment Technology - Manually Operated Hoist Rigging Systems (Reaffirm, revise, or withdraw before 02 June 2025)

6.6 ANSI E1.6-1 - 2021, Entertainment Technology--Powered Hoist Systems (Reaffirm, revise, or withdraw before 10 May 2024)

6.7 ANSI E1.6-2 - 2020, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry (Reaffirm, revise, or withdraw before 14 August 2025)

6.8 ANSI E1.6-3 - 2019, Selection and Use of Serially Manufactured Chain Hoists in the Entertainment Industry (Reaffirm, revise, or withdraw 07 October 2024)

6.9 BSR E1.6-4 - 202x, Design, Manufacture, and Inspection of Portable Controls for Electric Chain Hoists in the Entertainment Industry (Open for revision) *Task group members:* David Bond, Rod Haney, Rick Montgomery, John Ringelman, Elmer Veith, Jem Hodgson, Stephen Wood, Mike Webb, and Joe Jeremy (leader).
[See [BSR_E1.6-4-202x_Rig2021-2030r1.pdf](#)]

The task group has delivered a revised draft for the working group's consideration. What's next?

Joe Jeremy reported. First, he thanked the task group for all of their hard work, explained how the original E1.6-4 had been split between two new drafts, which had been sent to the working group for this meeting, then moved to send both of the drafts to first public review. The motion was seconded, and carried without objection or abstention. The motion now forwards to the TSC for consideration.

6.10 BSR E1.6-5, Selection and Use of Portable Controls for Electric Chain Hoists in the Entertainment Industry *Task group members:* David Bond, Rod Haney, Rick Montgomery, John Ringelman, Elmer Veith, Jem Hodgson, Stephen Wood, Mike Webb, and Joe Jeremy (leader).

[See *BSR_E1.6-5_Rig2021-2031r0.pdf*]

The task group has delivered a new draft for the working group's consideration. What's next?

See Joe Jeremy's update and motion, in 6.9 above.

6.11 ANSI E1.8 – 2018, Entertainment Technology—Loudspeaker Enclosures Intended for Overhead Suspension—Classification, Manufacture and Structural Testing (Reaffirm, revise, or withdraw by 29 November 2023)

6.12 ANSI E1.15 - 2006 (R2021), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies (Reaffirm, revise, or withdraw before 08 March 2026)

6.13 ANSI E1.21 - 2020, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events (Reaffirm, revise, or withdraw before 23 March 2025)

Three factors might compel the working group to consider reopening the standard for revision:

First, there has been previous discussion within the RWG about harmonizing weather hazard mitigation requirements from the ESWG's Weather Preparedness standard with the OMP requirements of E1.21. ANSI ES1.7 – 2021 is now published, so that correlation will become immediately useful.

Second, there are current code change proposals within the International Building Code seeking to correlate with the IFC, but which also include a reference to ANSI ES1.7. Currently, the IFC does not reference ES1.7, but the developers would – presumably - welcome such a reference, especially if it is supported by the IBC. Including it as a reference in E1.21 will only bolster such an approval.

Third, the current IBC proposal is part of a longer-term, 3-step process by ASCE to overhaul ASCE 7, and ASCE 37. Their mid-term goal is to write an explicit statement in the next revision of ASCE 37, prohibiting its use for anything other than buildings under construction. Opening E1.21 for revision will present an opportunity to invite ASCE's input as a gesture of collaboration towards achieving mutually acceptable requirements.

On the merits of the explanation provided in the agenda, Richard Nix asked if there were any questions, then moved to open the standard for revision. The motion was seconded, and carried without objection or abstentions.

Chris Kaiser asked if the previous task group members remained intact and willing. Richard said yes, provided the names of the task group members, then asked for a few more volunteers who would be specifically interested in the integration of ES1.7. After discussion, Chris Kaiser appointed the following task group members: Richard Nix (leader), Bill Gorlin, Dan Louis, Sandy Gilzow, Kyle Kusmer, Elmer Veith, Ryan Riordan, Joe Golden, Shawn Nolan, and Allen Winzler.

6.14 BSR E1.22 - 202x, Entertainment Technology - Fire Safety Curtain Systems (Open for revision) *Task group members:* Dan Culhane (task group leader), Bruce Darden, Tim Hansen, Eric Rouse, Ted Jones, Sandy Gilzow, and Tracey Nunnally

[See *BSR E1_22_PR1 CmmntSmmry.pdf*]

The public review ended on 15 December 2021. No comments were received, and the summary has been delivered to you, for the record, as part of this meeting's document deliverables. What's next?

Bruce Darden moved to approve the draft as an American National Standard. The motion was seconded, and will be decided by letter ballot.

6.15 ANSI E1.39 - 202x, Entertainment Technology –Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry (Reaffirm, revise, or withdraw by 06 May 2026).

6.16 BSR E1.43 - 202x, Live performer flying effect standard (Open for revision) *Task group members:* Eric Rouse (task group leader), Jonathan Duell, Ryan Kunkel, Robert Dean, Tracy Nunnally, Bill Gorlin, Fred Caron, and Stewart Stephens.

[See Draft E1.43 - First Pass 12_23_2021.pdf and Framing Our Approach to Changes in E1.43.pdf]

The task group has sent a progress draft containing notes and questions, along with an explanatory document regarding their current approach, for working group discussion.

Eric Rouse reported, saying that the current update was a preview of what they hope to achieve by the June meeting cycle. Then, he thanked his task group for their talent, patience, and effort. He went through the points in the “Approach” document, and asked the working group at-large for an informal review and comment, so that they can work towards a completed draft in time for the June meeting.

Key points in the task group’s approach include considerations for “proven service designs”, by adding provisions for manual flying systems, and making the overall requirements more applicable to smaller productions. They will expand the standard’s applicability to a wider audience, so it’s applicable to non-dramatic flying, such as circus performance, and they will also reorganize the standard to be more user-friendly.

Chris Kaiser commented that the supplemental approach document was very well organized, and very helpful towards understanding their path. Several others agreed.

6.17 Rigging Glossary

Chris Kaiser (leader), David Boevers, Tom Cowdery, Siobhan Gee, Ted Jones, Mike Wells

[See GLOSSARY PROJECT UPDATE REPORT TO RWG 1-12-22.pdf]

The ad-hoc committee has sent a progress update for your reference.

Chris Kaiser gave a report, and asked that anyone with questions or comments please send them to the committee.

6.18 ANSI E1.47 – 2020, Recommended Guidelines for Entertainment Rigging System Inspections (Reaffirm, revise or withdraw before 18 June 2025)

Chris Kaiser said that Pete Svitavsky has offered some suggested changes, but starting a revision project NOW is not needed.

6.19 ANSI E1.50-1 – 2017, Requirements for the Structural Support of Temporary LED, Video & Display Systems (Reaffirm, revise or withdraw by 14 August 2022)

Chris Kaiser reminded everyone that the action deadline is approaching, so we should think about how to accommodate it. Richard Nix said he would reach out to Charlie Weiner to see if he was still interested in leading the task group, and what – if any – changes he thought might be required. He will bring an update back to the group at the next meeting.

6.20 ANSI E1.56 - 2018, Rigging Support Points Design, Fabrication, Installation, and Testing (Reaffirm, revise or withdraw by 06 November 2023)

6.21 ANSI E1.67 – 2021, Design, Inspection, Maintenance, Selection, and Use of Hand-operated Chain- and Lever Hoists for the Entertainment Industry (Reaffirm, revise, or withdraw by 06 May 2026).

6.22 BSR E1.70 – 202x, Selection and Use of Ground Supported Winch Stands and Towers in the Entertainment Industry *Task group members:* Jacob Abbott, Ethan Gilson (task group leader), Eric Rouse, Will Todd, Elmer Veith, Ryan Riordan, and Max Wilson

From the September 2021 meeting minutes:

Elmer Veith reported that they are meeting, they have an outline, but do not have a document ready. He said he would strongly encourage Ethan to have something ready for January's meeting.

Any news or action?

Ethan Gilson reported that the task group has been meeting on a regular, biweekly schedule. Most recently, they have been addressing specific scoping issues, such as what type of assemblies to cover – e.g. it is not their intention to cover “tripod speaker stands” in this standard.

7 New business

8 Other business and announcements

8.1 Above & Beyond Awards

9 Schedule for future meetings

The meeting schedule is posted at <http://www.esta.org/ESTA/meetings.php>. The next working group meeting is scheduled to be in-person (with WebEx availability, too) for Thursday 03 March 2022, from 19:00 – 23:00, at the Hilton Baltimore Inner Harbor. Other future meetings, subject to change, are as follows:

Summer 2022: In conjunction with the NAMMShow 2022; in-person, 03-05 June 2022, Anaheim, CA

Karl Ruling reported that the meeting will not be held at the Hilton. The location is TBC.

10 Adjournment

The agenda business being complete, there being no further business brought forth, Chris Kaiser declared the meeting adjourned at 11:55.

Rigging Working Group members as of 18 January 2022

Name	Representing	Status	Int cat
Ryan Riordan	Accurate Staging, Inc.	P	CP
Brent Armstrong	Alpine Rigging & Structural Design	P	CP
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
Keith Bohn	Area Four Industries	A	MP
Neil Montour	Atlanta Rigging Systems	P	DR
David Boevers	Carnegie Mellon University	P	DE
Ed Leahy	Chicago Flyhouse, Inc	P	CP
Jeffrey M. Reder	Clark-Reder Engineering, Inc.	P	G
Shawn Nolan	Clark-Reder Engineering, Inc.	A	G
Ken Tilson	Columbus McKinnon Corp.	P	MP
Nick Fleming	Columbus McKinnon Corp.	A	MP
Mike Skinner	Contract Services Administration Trust Fund	P	U
Chris Moulton	Contract Services Administration Trust Fund	A	U
Jordi Van Berkum	Cybermotion North America	P	DR
Tyler DeLong	DeLong Rigging Solutions	P	U
Don Earl	Earl Girls, Inc.	P	DR
Steven Ricks	Electronic Theatre Controls, Inc.	P	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Cole Muth	Electronic Theatre Controls, Inc.	A	MP
Allen Winzler	Entertainment and Rigging Engineering	P	DE
Eric Rouse	Entertainment Project Services, LLC	P	CP
Joseph Champelli	Entertainment Project Services, LLC	A	CP
Joshua "Fritz" Friedensohn	Entertainment Project Services, LLC	A	CP
Ethan W Gilson	Entertainment Rigging Services, LLC	P	U
John Ringelman	Freeman Companies	P	DR
Chris Schmidt	Freeman Companies	A	DR
Gert Jan Brouwer	Frontline Rigging & Motion B.V.	P	CP
Joe Golden	Gallagher Staging & Productions	P	DR
Miriam Paschetto	Geiger Engineers	P	DE
Ted Jones	Grand Stage	P	U
Zhou Jianzhao	Guangzhou Haoyang Electronic Co., Ltd.	P	CP
Reid Neslage	H & H Specialties Inc.	P	MP
Pat Grenfell	Hoist Sales & Service	P	DR

Rigging Working Group members as of 18 January 2022

Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Rod Haney	I.A.T.S.E. Local 891	P	U
Ross Long	I.A.T.S.E. Local 891	A	U
Patrick Bash	In-House Production	P	DR
Bruce Darden	InterAmerica Stage, Inc.	P	CP
Drew Becker	InterAmerica Stage, Inc.	A	CP
Jeremy Hodgson	Jeremy Hodgson	I	G
Jonathan Deull	JSD Projects LLC	P	U
William B. Gorlin	M.G. McLaren, P.C.	P	G
Peter W. Batt	Mainstage Theatrical Supply, Inc	P	DR
Mike Garl	Mike Garl Consulting LLC	P	DE
Rick Montgomery	Motion Laboratories, Inc.	P	MP
Mike Webb	Motion Laboratories, Inc.	A	MP
Michael Shaw	Motion Laboratories, Inc.	A	MP
Stefan Pries	NEP Live Events	P	DR
Tim Hansen	Oasis Stage Werks	P	DR
Orestes Mihaly	Production Resource Group	P	DR
Troy Atkinson	Production Resource Group	A	DR
Matt Jordan	Production Resource Group	A	DR
Jay Cid	R&M Materials Handling / Stagemaker	P	MP
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Bennett Brian	Reed Rigging Inc.	P	DR
Elmer Veith	Reliable Design Services	P	CP
Matt Panther	Reliable Design Services	A	CP
Richard J. Nix	Richard J. Nix	I	G
Jesse Adams	Rose Brand Wipers, Inc	P	DR
Stewart Stephens	S2 Technologies	P	G
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Joseph Jeremy	Show Distribution Group, Inc.	P	CP
Bill McIntyre	Show Distribution Group, Inc.	A	CP
Sanford P. Gilzow	Shur-Rig LLC	P	G
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
Siobhan Gee	Siobhan Gee	I	G
Brad Dittmer	Stage Labor of the Ozarks	P	U
Steve Walker	Steve A. Walker & Associates	P	G
Kyle Kusmer	Steven Schaefer Associates, Inc	P	DE
Mike Merz	Steven Schaefer Associates, Inc	A	DE

Rigging Working Group members as of 18 January 2022

Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Jason Tello	T6 Truss Designs. LLC	P	CP
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
David Bond	Tait Towers Manufacturing LLC	A	CP
Ryan Kunkel	Tait Towers Manufacturing LLC	A	CP
Tony Diemont	Texas Scenic Company	P	DR
Russell Solomon	Texas Scenic Company	A	DR
Steven Serafin	The Hartford Group	P	G
Jim Niesel	Theatre Projects Consultants, Inc.	P	DE
Jerry Gorrell	Theatre Safety Programs	P	G
Sam Michael	Thern, Inc.	P	MP
Jeff Wilkowski	Thern, Inc.	A	MP
Paul Brunner	Thern, Inc.	A	MP
Daniel H. Louis	Theta Consulting LLC	P	G
Thomas Cowdery	Thomas Cowdery	I	U
Troy Trinkle	Troy Trinkle, LLC	P	CP
Nathan Villines	Tyler Truss Systems	P	MP
Bill Edwards	Tyler Truss Systems	A	MP
Josh Conner	Tyler Truss Systems	A	MP
Todd Spencer	Ventana Capital Investments LLC	P	G
Tracy Nunnally	Vertigo	P	CP
John P. Moore	Vertigo	A	CP
Ian Bevan	Walt Disney Company	P	DE
Lee Chuong	Walt Disney Company	A	DE
Peter V. Svitavsky	Wenger Corp.	P	CP
Dan Culhane	Wenger Corp.	A	CP
Paul Zagajeski	Wenger Corp.	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Theresa Lovell	Xtreme Structures and Fabrication	A	MP
Robert Dean	ZFX, Inc.	P	CP