

Minutes
Rigging Working Group
Saturday, 17 September 2022
Marriott DFW Westlake

Chairpersons:

Bill Sapsis; Sapsis Rigging, Inc; P; U; (presiding)
Chris Kaiser; Syracuse Scenery and Stage Lighting Co., Inc.; P; DR

Recording secretaries:

Karl Ruling and Richard Nix (ESTA)

Attendees:

William Ian Auld; Auld Entertainment; O; U
Peter W. Batt; Mainstage Theatrical Supply, Inc; P; DR
Bennett Brian; Reed Rigging Inc.; P; DR
Gert Jan Brouwer; Frontline Rigging & Motion B.V.; P; CP
Paul Brunner; Thern, Inc.; A; MP
Frederic Caron; Frederic Caron; O; U
John Caudill; Productions Unlimited; P; DE
Lee Chuong; Walt Disney Company; A; DE
Jay Cid; R&M Materials Handling / Stagemaker; P; MP
Thomas Cowdery; Thomas Cowdery; I; U
Dan Culhane; Wenger Corp.; A; CP
Bruce Darden; InterAmerica Stage, Inc.; P; CP
David Darland; Encore Global; O; U
Robert Dean; ZFX, Inc.; P; CP
Tyler DeLong; DeLong Rigging Solutions; P; U
Jonathan Deull; JSD Projects LLC; P; U
Don Earl; Earl Girls, Inc.; P; DR
Ethan W Gilson; Entertainment Rigging Services, LLC; P; U
Sanford P. Gilzow; Shur-Rig LLC; P; G
William B. Gorlin; M.G. McLaren, P.C.; P; G
Jerry Gorrell; Theatre Safety Programs; P; 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
Zhou Jianzhao; Guangzhou Haoyang Electronic Co., Ltd.; P; CP
Shane Kelly; Shane Kelly; I; U
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Ed Leahy; Chicago Flyhouse, Inc; P; CP
Neil Montour; Atlanta Rigging Systems; P; DR
Cole Muth; Electronic Theatre Controls, Inc.; A; MP
Jim Niesel; Theatre Projects Consultants, Inc.; P; DE
Tracy Nunnally; Vertigo; P; CP
Daniel Louis, P.E.; Daniel Louis, P.E.; I; DE
Miriam Paschetto; Geiger Engineers; P; DE
Jeffrey M. Reder; Clark-Reder Engineering, Inc.; P; G
Ryan Riordan; Riordan Rigging LLC; P; U
Mike Skinner; Contract Services Administration Trust Fund; P; U
Stewart Stephens; S2 Technologies; P; G
Patrick Stewart; Patrick Stewart; O; U
Ken Tilson; Columbus McKinnon Corp.; P; MP
Elmer Veith; Reliable Design Services; P; CP
Andrew Volk; Reed Rigging, Inc.; A; DR
Steve Walker; Steve A. Walker & Associates; P; G
Mike Webb; Motion Laboratories, Inc.; A; MP
Drew Wending; Encore Global; A; U
Mike Weston; Encore Global; P; U
Greg Williams; Encore Global; A; U
R. Duane Wilson; Amer. Society of Theatre Consultants; P; DE

Max A. Wilson; Applied Electronics; P; MP
Allen Winzler; Entertainment and Rigging Engineering; P; DE
Stephan Jon Wood; Tait Towers Manufacturing LLC; P; CP

Visitors:

Eric Warden; Encore Global

1 Opening Remarks

Bill Sapsis Called the meeting to order at 19:08, welcoming everyone and thanking them for attending.

2 Patent and anti-trust statements

2.1 Reading of the anti-trust statement

Bill Sapsis 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 displayed a copy of the easy-to-read pamphlet.

No antitrust concerns were raised.

2.2 Reading of the call for patents

Bill Sapsis 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

Bill Sapsis 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

Those in the room introduced themselves, then Richard Nix called out the names of the people on-line and they said hello.

3.3 Determination of a quorum

(There are 63 voting entities. A quorum is 22, a supermajority is 32. After meeting actions the votes total 68.)

Richard Nix confirmed that we have enough people present to conduct business and pass a motion requiring a supermajority.

3.4 Processing of new membership and status change requests

The following applications or status change requests have been received:

Demian Purdy; Encore Global; A; U (change of representation, applied as CP, changed to U)
Dave Darland; Encore Global; O; U (change of representation)
Simon Grant; Encore Global; A; U (new application, applied as G, changed to U)
Greg Williams; Encore Global; A; U (change of representation)
Drew Wending; Encore Global; A; U (change of representation)
Robert Peterson; Shur-Rig LLC; A; G (new application)
John Caudill; Productions Unlimited; P; DE (new application)
Ryan Riordan; Riordan Rigging LLC; P; U
Reid Neslage; Texas Scenic Company; P; MP (change of voting status from A to P, change Tony Diemont to A)
Daniel Louis, P.E.; Cornerstone Consulting; I; G (change of representation. Applied as P but is representing self, applied as G, but may want to consider DE.
Troy Trinkle; ZFX, Inc; A; CP (change of representation)
Robert Dean ZFX, Inc; P; CP (status change request)
Tim Salamon; Encore Global; A (approved); U (change of representation)
Andrew Volk; Reed Rigging, Inc. A; DR (new application)
Jim Niesel; DE; Theatre Projects Consultants, Inc.; (status change request)
Stewart Stephens; G; S2 Technologies; (status change request)

Dan Culhane moved to approve the applications and 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:

Jon Lenard; Applied Electronics
Max Wilson; Applied Electronics
Neil Montour; Atlanta Rigging Systems
Jeff Reder; Clark-Reder Engineering
Shawn Nolan; Clark-Reder Engineering
Gert Jan Brouwer; Frontline Rigging & Motion B.V.
Pat Grenfell; Hoist Sales & Services
Steve Serafin; The Hartford Group
Jeff Wilkowski; Thern, Inc.
Sam Michael; Thern, Inc.
Paul Brunner; Thern, Inc.
Mike Wells; Xtreme Structures and Fabrication

All of the voting entities had members present, except Steve Serafin and Mike Wells, so their statuses were changed to that of Observer.

3.5.2 Letter ballot notices

The following voters have missed three or more consecutive letter ballots, and have been moved to Observer status.

Jim Niesel; DE; Theatre Projects Consultants, Inc. (see 3.4 above)
Stewart Stephens; G; S2 Technologies (see 3.4 above)
Jordi van Berkum; DR; Cybermotion North America
Patrick J Bash; DR; In-House Production
Robert Dean; CP; ZFX, Inc; (see 3.4 above)
Darren Coats; U; Safety Factor Training and Consulting;

Dan Culhane moved to reinstate those present who had lost voting privileges. The motion was seconded and carried without objection or abstention.

3.5.3 Automatic status changes occurring before this meeting

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

- Troy Trinkle (change of employment, see 3.4 above)*
- Dan Louis (change of employment, see 3.4 above)*
- Theresa Lovell (retired)*
- Mark Newlin (no longer with Xtreme)*

3.6 Consensus body

The consensus body, after today's working group meeting's actions, is as follows:

Name	Representing	Status	Int Cat
Brent Armstrong	Alpine Rigging & Structural Design	P	CP
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
Peter A. Scheu	Amer. Society of Theatre Consultants	A	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
Daniel Louis, P.E.	Daniel Louis, P.E.	I	DE
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
Mike Weston	Encore Global	P	U
Drew Wending	Encore Global	A	U
Demian Purdy	Encore Global	A	U
Tim Salamon	Encore Global	A	U
Greg Williams	Encore Global	A	U
Simon Grant	Encore Global	A	U
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

Name	Representing	Status	Int Cat
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
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
Ross Long	I.A.T.S.E. Local 891	A	U
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
John Caudill	Productions Unlimited	P	DE
Jay Cid	R&M Materials Handling / Stagemaker	P	MP
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Bennett Brian	Reed Rigging Inc.	P	DR
Andrew Volk	Reed Rigging, Inc.	A	DR
Elmer Veith	Reliable Design Services	P	CP
Matt Panther	Reliable Design Services	A	CP
Richard J. Nix	Richard J. Nix	I	G
Ryan Riordan	Riordan Rigging LLC	P	U
Robert Haycock	Robert Haycock	I	U
Jesse Adams	Rose Brand Wipers, Inc	P	DR
Stewart Stephens	S2 Technologies	P	G
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Shane Kelly	Shane Kelly	I	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
Robert Peterson	Shur-Rig LLC	A	G
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
Siobhan Gee	Siobhan Gee	I	G
Steve Walker	Steve A. Walker & Associates	P	G
Kyle Kusmer	Steven Schaefer Associates, Inc	P	DE
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR

Name	Representing	Status	Int Cat
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
Reid Neslage	Texas Scenic Company	P	MP
Russell Solomon	Texas Scenic Company	A	DR
Tony Diemont	Texas Scenic Company	A	DR
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
Thomas Cowdery	Thomas Cowdery	I	U
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
Robert Dean	ZFX, Inc.	P	CP
Troy Trinkle	ZFX, Inc.	A	CP
		Total consensus votes:	68
Votes by interest category	Custom market producers (CP):		12
	Mass market producers (MP):		9
	Designers (DE):		11
	Dealer or rental company (DR):		13
	User (U):		13
	General Interest (G):		10

4 Approval of the minutes from the last meeting

[See [RWGmin06-2022r1_DRAFT.pdf](#)]

Dan Culhane moved to approve the minutes. The motion was seconded and carried without objection or abstention.

5 Approval of agenda

Tim Hansen moved to approve the agenda. The motion was seconded and carried without objection or abstention.

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

The motion to accept as an American National Standard has carried through the RWG, the TSC, and has forwarded to the Executive Committee.

Karl Ruling reported that the motion had carried through the Executive Committee. A BSR9 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).

The RWG letter ballot motion to approve as an American National Standard carried, and has forwarded to the TSC.

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_E1.6-5-202x_PR1_Cmmnt_Summry_None.pdf]

The letter ballot motion to approve as an American National Standard was carried by both the RWG and the TSC. The motion has been held until the same motion for BSR E1.6-4 carries in the TSC.

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 BSR E1.21 - 202x, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events (open for revision) *Task group members:* Richard Nix (task group leader), Bill Gorlin, Dan Louis, Sandy Gilzow, Kyle Kusmer, Elmer Veith, Ryan Riordan, Joe Golden, Shawn Nolan, Allen Winzler, and Donald Scott.

Any news or updates?

Richard Nix, Elmer Veith, and Allen Winzler all reported. Richard Nix reported that the current draft has been held to finish comparisons between its existing wind design methodology and the proposed code changes, to better understand the overall impact. Elmer Veith said the building code changes are not nearly as bad as expected. We can work with the new code requirements and move forward with the E1.21 revision. Allen Winzler agreed. Richard Nix said the task group will have a document to consider at the next meeting.

6.14 ANSI E1.22 - 2022, Entertainment Technology - Fire Safety Curtain Systems (Reaffirm, revise, or withdraw by 25 April 2027).

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 22-09-07 - E1.43 progress file.pdf]

The task group has provided another progress update for the working group to review.

There was a lot of discussion. Bill Gorlin explained the work of the task group. The roles and responsibilities section is revised, and the media that can be used are expanded. The main change is document organization. This was done to make it more readable.

He said that he created a road map showing what changed from the original standard and where the material or subject matter is in the new version.

It's a big document, but Gorlin said the task group would welcome comments on the document or any part of it.

Richard Nix, as the entertainment technician, asked about the purpose of the “certified system”. Tracy Nunnally said that purpose is that if a component needs to be changed, and an identical part is used, the whole system doesn't need to be certified again, as long as the substituted part is certified as the same.

Robert Dean said that certification also helps reusing the system in different shows without having to have each installation certified as a new system. They also can have one design, but multiple copies of it. Each copy does not have to be certified. They had used another term, “service-proven,” but that seemed not to be as good.

There was discussion of the exclusions. It does not cover flying the general public. Flying the public is the subject of amusement park rides. This standard is not about amusement park rides.

Comments should go to the task group by November 1.

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

Any news or updates?

6.18 ANSI E1.50-1 – 2017, Requirements for the Structural Support of Temporary LED, Video & Display Systems (Open for revision). *Task Group Members:* Charlie Weiner, Stefan Pries, Siobhan Ghee, Joe Golden, Sandy Gilzow (Task group leader), Steve Walker, and Richard Nix

Any news or updates?

Charlie Weiner has had to step back as task group leader. Sandy Gilzow volunteered, and was appointed as the new task group leader.

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

6.20 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).

6.21 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, Mike Weston.

From the draft June meeting minutes:

Ethan Gilson reported that Will Todd had reached out to some European constituents regarding a draft DIN standards project to see if they would be willing to share, and did not get a welcome response. Ethan said the CEN/TC 433W1 working group is working on this, and that he will also reach out to them in an effort to harmonize the two efforts.

Any news or action?

Ethan Gilson reported on three items. He reached out to TC 433W1, and the response was that we can most easily contact Michael Lichter, unofficially, to see how we can align our work. We could ask for a formal alliance, but it's harder. Will Todd said that one of Area Four's engineers is working on TC 433W1. One of our problems is trying to define exactly what we are trying to cover and what products will be outside the scope. Ethan needs more support from task group. He asked for Mike Weston to be appointed to the task group. Bill Sapsis made it so.

6.22 Rigging Glossary

On sabbatical until further notice. This item will be removed from future agendas until further notice.

7 New business

None.

8 Other business and announcements

8.1 Above & Beyond Awards

Information on the Above & Beyond Awards may be found at http://tsp.esta.org/tsp/news/award_recipients.html. The nomination site is open year round, and the award is designed for members to highlight the work of their peers. The deadline for nominations is 01 November.

9 Schedule for future meetings

The meeting schedule is posted at <http://www.esta.org/ESTA/meetings.php>.

The Winter meetings will be held online, week of 16 January 2023. The Spring 2023 meeting will be held in conjunction with NAMM, week of 10 April 2023. The ETCP Council is the only committee who will meet at USITT.

10 Adjournment

The agenda business being complete, there being no additional business brought forward, Bill Sapsis adjourned the meeting at 20:22.

Rigging Working Group members as of 17 Sep 2022

Name	Representing	Status	Int cat
Jesse Adams	Rose Brand Wipers, Inc	P	DR
Matthew Antonucci	Contract Services Administration Trust Fund	O	U
Brent Armstrong	Alpine Rigging & Structural Design	P	CP
Troy Atkinson	Production Resource Group	A	DR
William Ian Auld	Auld Entertainment	O	U
Robert Barbagallo	Solotech Inc.	O	DR
Dana Bartholomew	Silver State Wire Rope and Rigging	P	DR
Patrick Bash	In-House Production	O	DR
Peter W. Batt	Mainstage Theatrical Supply, Inc	P	DR
William Beautyman	Limelight Productions, Inc.	O	DR
Drew Becker	InterAmerica Stage, Inc.	A	CP
Justin Bennett	University of the Incarnate Word	O	U
Jordi Van Berkum	Cybermotion North America	O	DR
Ian Bevan	Walt Disney Company	P	DE
Roy Bickel	Roy Bickel	O	G
Tyler Bland	Walt Disney Company	O	U
David Boevers	Carnegie Mellon University	P	DE
Keith Bohn	Area Four Industries	A	MP
David Bond	Tait Towers Manufacturing LLC	A	CP
Bennett Brian	Reed Rigging Inc.	P	DR
Gert Jan Brouwer	Frontline Rigging & Motion B.V.	P	CP
Paul Brunner	Thern, Inc.	A	MP
David M. Campbell	Geiger Engineers	O	G
Frederic Caron	Frederic Caron	O	U
John Caudill	Productions Unlimited	P	DE
Joseph Champelli	Entertainment Project Services, LLC	A	CP
Lee Chuong	Walt Disney Company	A	DE
Jay Cid	R&M Materials Handling / Stagemaker	P	MP
Daniel J. Clark	Clark-Reder Engineering, Inc.	O	G
Darren Coats	Safety Factor Training and Consulting	O	U
Josh Conner	Tyler Truss Systems	A	MP
Thomas Cowdery	Thomas Cowdery	I	U
Brandon Cox	Heavyweight Solutions	O	CP
Dan Culhane	Wenger Corp.	A	CP
Bruce Darden	InterAmerica Stage, Inc.	P	CP
David Darland	Encore Global	O	U
Robert Dean	ZFX, Inc.	P	CP
Tyler DeLong	DeLong Rigging Solutions	P	U

Rigging Working Group members as of 17 Sep 2022

Jonathan Deull	JSD Projects LLC	P	U
Tony Diemont	Texas Scenic Company	A	DR
Jim Digby	Event Safety Alliance	O	U
Brad Dittmer	Stage Labor of the Ozarks	O	U
Russ Dusek	I Weiss	O	MP
Don Earl	Earl Girls, Inc.	P	DR
Bill Edwards	Tyler Truss Systems	A	MP
Jennifer Ferguson	Kito Group	O	MP
Nick Fleming	Columbus McKinnon Corp.	A	MP
Tim Franklin	Theta Consulting LLC	O	G
Joshua "Fritz" Friedensohn	Entertainment Project Services, LLC	A	CP
Mike Garl	Mike Garl Consulting LLC	P	DE
James M. Garner	Walt Disney Company	O	G
Siobhan Gee	Siobhan Gee	I	G
Ethan W Gilson	Entertainment Rigging Services, LLC	P	U
Sanford P. Gilzow	Shur-Rig LLC	P	G
Joe Golden	Gallagher Staging & Productions	P	DR
Tiny Good	Showtech Australia	O	U
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
Simon Grant	Encore Global	A	U
Pat Grenfell	Hoist Sales & Service	P	DR
Phillip R. Hampton	Charcoalblue	O	DE
Rod Haney	I.A.T.S.E. Local 891	P	U
Tim Hansen	Oasis Stage Werks	P	DR
Sean Harding	Port Lighting Systems	O	G
Robert Haycock	Robert Haycock	I	U
Chris Higgs	Total Solutions Group	O	G
Jeremy Hodgson	Jeremy Hodgson	I	G
Donald Hoffend_III	Avista Designs, LLC	O	G
Quinten James	Flying By Troy	O	U
Joseph Jeremy	Show Distribution Group, Inc.	P	CP
Zhou Jianzhao	Guangzhou Haoyang Electronic Co., Ltd.	P	CP
Ted Jones	Grand Stage	P	U
Matt Jordan	Production Resource Group	A	DR
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Shane Kelly	Shane Kelly	I	U
Jerald Kraft	Electronic Theatre Controls, Inc	O	MP

Rigging Working Group members as of 17 Sep 2022

Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Ryan Kunkel	Tait Towers Manufacturing LLC	A	CP
Kyle Kusmer	Steven Schaefer Associates, Inc	P	DE
Ed Leahy	Chicago Flyhouse, Inc	P	CP
Jon Lenard	Applied Electronics	A	MP
Phillip Lewis	Tait Towers Manufacturing LLC	O	CP
Paul "Luke" Lewkowicz	Paul E Lewkowicz PC	O	DE
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Ross Long	I.A.T.S.E. Local 891	A	U
Jacob E. Loretto	Musson Theatrical Inc.	O	DR
Wendy Manson	Wendy Manson	O	G
Ryan McAlpine	Foy Invenenterprises, Inc.	O	DR
Bill McIntyre	Show Distribution Group, Inc.	A	CP
Sam Michael	Thern, Inc.	P	MP
Steven Michelman	Entertainment Project Services, LLC	O	CP
Orestes Mihaly	Production Resource Group	P	DR
Rick Montgomery	Motion Laboratories, Inc.	P	MP
Neil Montour	Atlanta Rigging Systems	P	DR
John P. Moore	Vertigo	A	CP
Chris Moulton	Contract Services Administration Trust Fund	A	U
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Cole Muth	Electronic Theatre Controls, Inc.	A	MP
John Neal	Rhino Staging	O	G
Reid Neslage	Texas Scenic Company	P	MP
Jim Niesel	Theatre Projects Consultants, Inc.	P	DE
Richard J. Nix	Richard J. Nix	I	G
Shawn Nolan	Clark-Reder Engineering, Inc.	A	G
Tracy Nunnally	Vertigo	P	CP
Gregory Orth	WNP Services, Inc.	O	DR
Daniel Louis, P.E.	Daniel Louis, P.E.	I	DE
Matt Panther	Reliable Design Services	A	CP
Miriam Paschetto	Geiger Engineers	P	DE
Robert Peterson	Shur-Rig LLC	A	G
Kurt Pragman	Pragman Associates, LLC	O	G
Stefan Pries	NEP Live Events	P	DR
Demian Purdy	Encore Global	A	U
Jeffrey M. Reder	Clark-Reder Engineering, Inc.	P	G
Luke Ricca	Luke Ricca	O	G
Steven Ricks	Electronic Theatre Controls, Inc.	P	MP

Rigging Working Group members as of 17 Sep 2022

Mark Riddlesperger	LA ProPoint, Inc.	O	CP
John Ringelman	Freeman Companies	P	DR
Ryan Riordan	Riordan Rigging LLC	P	U
Ryan Roby	Ryan Roby	O	U
Eric Rouse	Entertainment Project Services, LLC	P	CP
Tim Salamon	Encore Global	A	U
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Amer. Society of Theatre Consultants	A	DE
Chris Schmidt	Freeman Companies	A	DR
Donald Scott	Structural Engineering Institute of ASCE	O	DE
Ford Sellers	Chauvet Lighting	O	MP
Steven Serafin	The Hartford Group	O	G
Michael Shaw	Motion Laboratories, Inc.	A	MP
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Mike Skinner	Contract Services Administration Trust Fund	P	U
Monica Skjonberg	Skjonberg Controls, Inc.	O	CP
Knut Skjonberg	Skjonberg Controls, Inc.	O	CP
John C. Snook	Thermotex Industries Inc.	O	CP
Lynn M. Snook	Thermotex Industries Inc.	O	CP
Russell Solomon	Texas Scenic Company	A	DR
Todd Spencer	Ventana Capital Investments LLC	P	G
Stewart Stephens	S2 Technologies	P	G
Patrick Stewart	Patrick Stewart	O	U
Peter V. Svitavsky	Wenger Corp.	P	CP
Ross Taylor	Taylor & Taylor Associates	O	G
Jason Tello	T6 Truss Designs. LLC	O	CP
Ken Tilson	Columbus McKinnon Corp.	P	MP
Will Todd	Area Four Industries	P	MP
Troy Trinkle	ZFX, Inc.	A	CP
Stephen Vanciel	IATSE Local 631	O	U
Elmer Veith	Reliable Design Services	P	CP
Nathan Villines	Tyler Truss Systems	P	MP
Andrew Volk	Reed Rigging, Inc.	A	DR
Steve Walker	Steve A. Walker & Associates	P	G
Mike Webb	Motion Laboratories, Inc.	A	MP
Charlie Weiner	Eurotruss	O	MP
Michael Wells	Xtreme Structures and Fabrication	O	MP
Drew Wending	Encore Global	A	U
Marty Wesstrom	Mountain Productions Inc.	O	DR

Rigging Working Group members as of 17 Sep 2022

Mike Weston	Encore Global	P	U
Jeff Wilkowski	Thern, Inc.	A	MP
Greg Williams	Encore Global	A	U
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
Max A. Wilson	Applied Electronics	P	MP
Allen Winzler	Entertainment and Rigging Engineering	P	DE
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
Jeong Sik Yoo	Ghost LX	O	DE
Andrew Young	Andrew Young	O	U
Paul Zagajeski	Wenger Corp.	A	CP