

**Minutes**  
**Rigging Working Group**  
Thursday, 17 March 2016  
Salt Lake Downtown Marriott at City Creek  
Salt Lake City, UT

**Presiding co-chairpersons:**

Bill Sapsis; Sapsis Rigging, Inc.; Principal; User  
Christine L. Kaiser; Inc.; Syracuse Scenery & Stage Lighting Co., Inc.; Principal; Dealer/Rental company

**Recording secretaries:**

Karl G. Ruling and Erin Grabe; ESTA

**Members in attendance:**

Jesse Adams; Rose Brand; P; DR  
Dana Bartholomew; Flying by Foy; Foy Inventerprises, Inc.; P; CP  
William Beautyman; Limelight Productions, Inc.; P; DR  
Bennett Brian; Reed Rigging Inc.; P; DR  
Joseph Champelli; Entertainment Project Services, LLC; P; DE  
Dan Culhane; SECOA; P; CP  
Bruce Darden; Rigging Innovators, Inc.; P; CP  
Jonathan Deull; JSD Projects LLC; I; U  
Brad Dittmer; Stage Labor of the Ozarks; P; U  
Russ Dusek; I Weiss; P; MP  
Mike Garl; Mike Garl Consulting LLC; P; DE  
Sanford P. Gilzow; Shur-Rig LLC; P; G  
William B. Gorlin; McLaren Engineering Group; M.G. McLaren, P.C.; P; G  
Jerry Gorrell; Theatre Safety Programs; P; G  
Tim Hansen; Oasis Stage Werks; Oasis Stage Werks; P; DR  
Pete Happe; Walt Disney Imagineering; Walt Disney Company; P; U  
Herb Hart; Columbus McKinnon Corp.; A; MP  
Jeremy Hodgson; Cirque Du Soleil, Inc.; P; U  
Donald Hoffend\_III; Avista Designs, LLC; P; G  
Joseph Jeremy; Niscon Inc.; Show Distribution Group, Inc.; P; MP  
Ted Jones; Art Drapery Studios; Grand Stage; P; U  
Jerald Kraft; JTH Lighting Alliance; P; CP  
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U  
Kyle Kusmer; Entertainment Structures Group; Steven Schaefer Associates; P; G  
Roger Lattin; I.A.T.S.E. Local 728; P; U  
Jon Lenard; Applied Electronics; A; MP  
Michael Lichter; Electronic Theatre Controls, Inc. (DE); Electronic Theatre Controls, Inc.; A; MP  
Dan Lisowski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; P; U  
Joseph McGeough; Flying by Foy; Foy Inventerprises, 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; R&M Materials Handling; P; MP  
Bartholomew J. Mueller; Recreation Engineering Inc.; O; DE  
Reid Neslage; H & H Specialties Inc.; P; MP  
Richard J. Nix; ZFX Flying, Inc.; P; G  
Shawn Nolan; Production Resource Group; A; DR  
Jennifer O'Leary; Columbus McKinnon Corp.; A; MP  
Kimberly Corbett Oates; Schuler Shook; P; DE  
Carlos Ortega; PSAV Presentation Services; P; U  
Miriam Paschetto; Geiger Engineers; P; G

Galen Price; Blue Man Group; P; U  
John Ringelman; Stage Rigging, Inc.; Freeman Companies; P; DR  
Peter A. Scheu; Scheu Consulting Services, Inc.; P; DE  
Chris Schmidt; Stage Rigging, Inc.; Freeman Companies; A; DR  
Joseph S. Schuster; Simpson Gumpertz & Heger; P; DE  
Russell Solomon; Texas Scenic Company; A; DR  
Peter V. Svitavsky; J.R. Clancy, Inc.; Wenger Corp.; P; CP  
Ken Tilson; Columbus McKinnon Corp.; P; MP  
Will Todd; Tomcat USA, Inc.; Milos Group; P; MP  
James Tomlinson; Team Tomlinson; P; G  
Stephen Vanciel; IATSE Local 631; O; U  
Steve Walker; Steve A. Walker & Associates; P; G  
Michael Wells; Xtreme Structures and Fabrication; P; MP  
Marty Wesstrom; Mountain Productions Inc.; P; DR  
R. Duane Wilson; George C. Izenour Associates; Amer. Society of Theatre Consultants; P; DE  
Stephan Jon Wood; Stage Technologies; Tait Towers Manufacturing LLC; P; CP  
Paul Zagajeski; J.R. Clancy, Inc.; Wenger Corp.; A; CP

**Visitors:**

Shannon Sullivan; iWeiss  
Drew Wending; PSAV  
Charles Gregory; PRG

**1 Opening remarks**

Bill Sapsis called the meeting to order at 7:12 p.m. Mountain Time. He apologized for falling asleep and being late. He noted the astounding number of people present, and thanked each one of them for their hard work for ESTA, the TSP, and this group.

**2 Attendance and membership**

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

**2.2 Call for quorum**

Bill Sapsis noted that a quorum was present, so business could be conducted.

**2.3 Requirements for membership**

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

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 Changes of membership status due to lack of attendance**

There were no voters in jeopardy of a change to Observer status due to lack of attendance.

**2.5 Processing of new membership and change in status requests:**

As of 17 March 2016, the following applications and requests were received:

Benjamin Cohen; Chicago Flyhouse, Inc.; O; CP  
Dana Bartholomew; Flying by Foy; Foy Investerpriases; P; CP  
Joe McGeough; Foy Investerpriases; Principal to Alternate; CP  
Jeremy Hodgson; Cirque du Soleil; P; U  
Thomas Lapp; Cirque du Soleil; A; U  
Jerald Kraft; JTH Lighting Alliance; Observer to Principal; CP  
James Tomlinson; Team Tomlinson; Observer to Principal; G  
Bennett Brian; Reed Rigging, Inc.; P; DR

Pete Svitavsky moved to accept the applications and status change requests. The motion was seconded. and approved by a unanimous show of hands.

## 2.6 Consensus body

The full consensus body of this working group at the time of this meeting, including those not present, was:

Name	Representing	Voting status	Interest category
Ethan William Gilson	Advanced Lighting and Production Services	P	U
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
Donald Hoffend_III	Avista Designs, LLC	P	G
Galen Price	Blue Man Group	P	U
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
Herb Hart	Columbus McKinnon Corp.	A	MP
Jennifer O'Leary	Columbus McKinnon Corp.	A	MP
Matthew Antonucci	Contract Services Administration Trust Fund	P	U
Heather Rowe	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
Dana Bartholomew	Foy Invenerprises, Inc.	P	CP
Joseph McGeough	Foy Invenerprises, Inc.	A	CP
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
Tracy Nunnally	Hall Associates Flying Effects	P	CP
John P. Moore	Hall Associates Flying Effects	A	CP
Ed Garstkiewicz	Harting KGAA	P	G
Pat Grenfell	Hoist Sales & Service	P	DR

Name	Representing	Voting status	Interest category
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
Jonathan Deull	JSD Projects LLC	I	U
Jerald Kraft	JTH Lighting Alliance	P	CP
Keith Bohn	Keith Bohn	I	G
William Beautyman	Limelight Productions, Inc.	P	DR
Scott Battaglia	LMG Inc.	P	DR
William B. Gorlin	M.G. McLaren, P.C.	P	G
Mike Garl	Mike Garl Consulting LLC	P	DE
Will Todd	Milos Group	P	MP
Marty Wesstrom	Mountain Productions 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
Todd Spencer	PSAV Presentation Services	A	U
Rick Montgomery	R&M Materials Handling	P	MP
Tracie Allen	R&M Materials Handling	A	MP
Bennett Brian	Reed Rigging Inc.	P	DR
Bruce Darden	Rigging Innovators, Inc.	P	CP
Jesse Adams	Rose Brand	P	DR
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services, Inc.	P	DE
Kimberly Corbett Oates	Schuler Shook	P	DE
Bob McVay	Schuler Shook	A	DE
Dan Culhane	SECOA	P	CP
Joseph Jeremy	Show Distribution Group, Inc.	P	MP
Sanford P. Gilzow	Shur-Rig LLC	P	G
Joseph S. Schuster	Simpson Gumpertz & Heger	P	DE
Brad Dittmer	Stage Labor of the Ozarks	P	U
Steve Walker	Steve A. Walker & Associates	P	G
Kyle Kusmer	Steven Schaefer 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

Name	Representing	Voting status	Interest category
Stephan Jon Wood	Tait Towers Manufacturing LLC	P	CP
James Tomlinson	Team Tomlinson	P	G
Stephen G. Surratt	Texas Scenic Company	P	DR
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
Jeff Wilkowski	Thern, Inc.	A	MP
Daniel H. Louis	Theta Consulting LLC	P	G
Adrian Forbes-Black	Total Structures Inc.	P	MP
Elmer Veith	Total Structures, Inc.	A	MP
Dan Lisowski	University of Wisconsin - Madison	P	U
Pete Happe	Walt Disney Company	P	U
Jeff T. Miller	Walt Disney Company	A	U
Ian Bevan	Walt Disney Company	A	U
Peter V. Svitavsky	Wenger Corp.	P	CP
Patrick Finn	Wenger Corp.	A	CP
Paul Zagajeski	Wenger Corp.	A	CP
Gregory Orth	WNP Services, Inc.	P	DR
Michael Wells	Xtreme Structures and Fabrication	P	MP
Richard J. Nix	ZFX Flying, Inc.	P	G
Robert Dean	ZFX Flying Inc.	A	G
<b>Voting Status Key: P = Principal voter, A = Alternate voter, I = Individual voter</b>			
<b>Votes by Interest Category:</b>			
Custom-market producer		CP	8
Designer		DE	7
Dealer or rental company		DR	13
General interest		G	13
Mass-market producer		MP	11
User		U	15
<b>Total votes possible:</b>			<b>67</b>

### 3 Approval of minutes from the previous meeting

See the draft minutes of the January meeting, *RIGmin01-2016.pdf*.

Dan Culhane moved to approve the minutes of the January meeting as drafted. The motion was seconded and approved by a show of hands, with no opposition or abstentions.

## 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 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 and Erin Grabe both held up copies of the pamphlet. Nothing was reported.

### 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 reported.

## 5 Approval of the agenda

An item to discuss the Investors in Innovation was requested by Mike Garl.

Dan Culhane moved to approve the agenda as amended. The motion was seconded and approved by a show of hands with no opposition or abstentions.

## 6 Old business

### 6.1 ANSI E1.1 - 2012, wire rope ladders (revision, reaffirmation, or withdrawal by 2017)

No news or action at this time.

### 6.2 ANSI E1.2 - 2012, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers (revision, reaffirmation, or withdrawal by 2017)

No news or action at this time.

### 6.3 BSR E1.4-1 - 201x, Entertainment Technology--Manual Counterweight Rigging Systems

Bill Sapsis noted that the revised draft standard is in public review through the end of the day on 11 April 2016 and that the approved resolutions were sent to the previous commenters with a deadline to respond of the end of the current review.

Karl Ruling noted that a few comments were already received.

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

Ethan Gilson, Brad Dittmer, and Ted Jones are working on it still, reported Ted Jones. Brad Dittmer said that he hopes to have something for this group by summer.

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

Richard Nix offered an apology for the delay in getting this circulated to the group. He noted that the document is written, but it needs clause numbering and formatting changes. He said that the group will have the document within two weeks of this meeting.

**6.6 ANSI E1.6-1 - 2012, Entertainment Technology--Powered Hoist Systems** (revision, reaffirmation, or withdrawal by 2017)

Bill Sapsis noted that the task group consists of: Dan Culhane, Pete Svitavsky, Bruce Darden (Chair), Sandy Gilzow, Joe Champelli, Christine Kaiser, and Jim Niesel. He said that Stephan Wood and Steven Ricks were added to the task group between meetings.

Bruce Darden said that they have identified about 50 issues that need to be investigated through two WebEx task group meetings. They have identified text from some of our other standards that should be considered for incorporation. He said that the group will have something to consider close to the true beginning of summer.

**6.7 ANSI E1.6-2 - 2013, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry** (revision, reaffirmation, or withdrawal by 2018)

No news or action at this time.

**6.8 ANSI E1.6-3 - 2012, Safe Use of Electric Chain Hoists in the Entertainment Industry** (revision, reaffirmation, or withdrawal by 2017)

No news or action at this time.

**6.9 ANSI E1.6-4 - 2013, Control of Electric Chain Hoists in the Entertainment Industry** (revision, reaffirmation, or withdrawal by 2018)

No news or action at this time.

**6.10 ANSI E1.8 - 2012, Entertainment Technology--Loudspeaker Enclosures Intended for Overhead Suspension--Classification, Manufacture and Structural Testing** (revision, reaffirmation, or withdrawal by 2017)

No news or action at this time.

**6.11 ANSI E1.15 - 2006 (R2011), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies** (revision, reaffirmation, or withdrawal by 2016)

Bill Sapsis noted that RWG voters were offered a letter ballot to approve the reaffirmation of this standard. The letter ballot, and the concurrent public review, time out at the end of the day on 11 April 2016.

Karl Ruling noted that comments were received in the letter ballot, and that the comments will be recirculated at the end of the initial ballot period.

**6.12 ANSI E1.21 - 2013, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events** (revision, reaffirmation, or withdrawal by 2018)

Richard Nix noted that there are some proposed interjections of E1.21 in chapter 31 of the International Fire Code. Any news of adoption will be shared as available.

**6.13 BSR E1.22 - 20xx, Entertainment Technology - Fire Safety Curtain Systems**

Bill Sapsis noted that RWG voters were offered a letter ballot to accept the draft standard as an American National Standard. That ballot timed out yesterday, 16 March 2016.

Karl Ruling noted that comments were received during the initial ballot period and that they will be recirculated to voters for an additional two weeks to allow voters to consider the comments and change their votes, if they wish. Voters who did not return ballots may use the two-week extension to cast a vote.

**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 2020)  
No news or action at this time.

**6.15 ANSI E1.43 - 2016, Live performer flying effect standard**

Bill Sapsis noted that ANSI's BSR approved of this document as an American National Standard on 12 February 2016! It was published five days later, on 17 February 2016. In just eight days, the standard was downloaded 209 times.

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

Dan Lisowski said that the study group for a positional data control protocol was using E1.44 as a source document. The intent is to stream positional data from automation equipment to media servers, lighting consoles, and audio systems to accurately track objects as they move through the performance environment.

**6.17 Rigging Glossary**

Chris Kaiser said that she and Miriam Paschetto are meeting here tomorrow.

**6.18 BSR E1.47 - 201x Recommended Guidelines for Entertainment Rigging System Inspections**

Bill Sapsis noted that RWG voters were offered a letter ballot to accept the draft standard as an American National Standard. That ballot timed out yesterday, 16 March 2016. Comments were received, said Karl Ruling, and they will be recirculated in a two-week ballot extension.

Richard Nix, again, voiced strong opinion against portions of the document, though he admitted that there is a need for a document to address the topic.

**6.19 BSR E1.50—Video wall project**

There was discussion on comments sent in by Keith Bohn, and whether or not to address them here or send them to the task group for resolution. Bill Gorlin noted that he had some comments of his own, including a problem with the document where other standards are being referenced. Bill Gorlin spoke in favor of including the full text from certain referenced publications. The problem, he admitted, was not with references that applied directly, but rather with text from other standards being re-appropriated to apply to a new topic. Ted Jones also spoke in favor of full text, to promote usability instead of having to collect more documents.

Richard Nix agreed and said that contextual references need to be looked at again. Both Keith Bohn and Bill Gorlin's comments will be shared with the working and task groups.

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

See BSRE1-56\_Rig2015-2034r1\_SupportPoints.pdf.

Shawn Nolan noted that the document was distributed to the group within the requisite two-weeks. Erin Grabe said that the TSC had pre-approved the public review of this draft standard, provided no substantive changes were made while approving it here in the working group. Shawn Nolan said that he hopes the working group has had time to consider the draft standard, and moved that it be offered for an initial public review. The motion was seconded and there was some discussion.

Bill Gorlin said that he found it very user-friendly, but he had questions about what “nominal design factors” means. Shawn Nolan said that it was a really difficult subject, and was reluctant to deal with them at this time. Bill Gorlin said that he would be content to offer his comments in public review.



Kimberly Corbett Oates also had reservations about how the draft could be applied to new buildings when the rigging points are being designed in a process integral to the building design. She, too, agreed to offer comments in public review. By a show of hands, the motion carried with all voting in favor except for one abstention.

## **7 New business**

## **8 Other business and announcements**

### **8.1 Above & Beyond Awards**

Bill Sapsis reminded the group that the the nomination site for the Above & Beyond Awards is open year round at [estalink.us/aboveandbeyond](http://estalink.us/aboveandbeyond).

### **8.2 CEN standards update**

Michael Lichter gave an update on the CEN TC 433. He noted an article he wrote in the latest issue of Protocol on the topic and said that anyone wanting more information should read it. He noted the progress of the four separate working groups:

WG 4, dealing with codes and practices, has encountered some complications in dealing with standardization due to different countries having varied practices. This working group is reforming and changing focus.

WG 3, dealing with terminology in different languages, is in a holding pattern awaiting a more focused scope.

WG 2 (formerly CEN 25-2), dealing with materials (similar to E1.2, Truss), is in the process of publishing a harmonized document based on CWA 5902-2.

WG 1, dealing with machinery (similarly to E1.6-1, Hoists), is in the process of creating a document based on CWG5902-1. Micheal Lichter said he is chairing the control section, and is working with over 20 engineers. He noted the intent to have a public review by the end of this year, applying for final approval in 2017, or early 2018, in up to 26 languages. He noted his excitement for achieving harmonized EU standards for the first time.

### **8.3 Investors in Innovation**

Mike Garl encouraged people to consider becoming Investors in Innovation. He offered thanks to those companies and individuals who have already become an Investor in Innovation.

Michael Lichter noted that the \$100 TSP participation fee is quite reasonable compared to the \$1,500 a year fee for DIN participation.

### **8.4 Tent-centric E1.21 / Our Common Goals Initiative (OCGI)**

No news or action at this time.

## **9 Schedule for future meetings**

Bill Sapsis reminded the group that the meeting schedule may be found at <http://esta.org/ESTA/meetings.php>.

### **9.1 July 2016 meetings in conjunction with NATEAC**

Bill Sapsis reminded the group that the July 2016 meetings are being held in conjunction with NATEAC in New York City. The RWG meeting is scheduled for Friday, 15 July 2016, from 9am to 1pm at the Roosevelt Hotel. The conference dates are 17-18 July 2016. Information on the conference is available at <http://www.nateac.org/>.

Bill Sapsis noted that registration for the conference will open on 1 April 2016.

### **9.2 LDI 2016**

Bill Sapsis reminded the group that LDI 2016 is the weekend of 21-23 October. TSP meetings dates are tentatively scheduled for 19-21 October. See <http://esta.org/ESTA/meetings.php> for the latest information.

## **10 Adjournment**

Richard Nix moved to adjourn. The motion was seconded. Hearing no objections, Bill Sapsis declared the meeting adjourned at 8:40 p.m. Mountain Time.

Name	Company	Representing	Voting status	Int cat
Jesse Adams	Rose Brand	Rose Brand	P	DR
Tracie Allen	R&M Materials Handling	R&M Materials Handling	A	MP
Matthew Antonucci	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	P	U
William Ian Auld	Auld Entertainment	Auld Entertainment	O	U
Rinus Bakker	Rhino Rigs B.V.	Rhino Rigs B.V.	O	G
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Roger Barrett	Star Events Group Ltd.	Star Events Group Ltd.	O	DR
Dana Bartholomew	Flying by Foy	Foy Invenenterprises, Inc.	P	CP
Scott Battaglia	LMG Inc.	LMG Inc.	P	DR
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Ian Bevan	Walt Disney Parks and Resorts	Walt Disney Company	A	U
Roy Bickel	Roy Bickel	Roy Bickel	O	G
Scott M. Blair	Full Throttle Films/ VER	Full Throttle Films/ VER	O	DR
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Keith Bohn	Keith Bohn	Keith Bohn	I	G
Ron Bonner	PLASA Technical Resources Office	PLASA EU	O	G
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Louis Bradfield	Louis Bradfield	Louis Bradfield	O	U
Buddy Braile	North Shore Theatrical Rigging	North Shore Theatrical Rigging	O	U
Bennett Brian	Reed Rigging Inc.	Reed Rigging Inc.	P	DR
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
David Carmack	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Joseph Champelli	Entertainment Project Services, LLC	Entertainment Project Services, LLC	P	DE
Daniel J. Clark	Clark-Reder Engineering, Inc.	Clark-Reder Engineering, Inc.	O	G
Benjamin Cohen	Chicago Flyhouse Inc.	Chicago Flyhouse Inc.	O	CP
Dan Culhane	SECOA	SECOA	P	CP
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Robert Dean	ZFX Flying Inc.	ZFX Flying Inc.	A	CP
Jonathan Deull	JSD Projects LLC	JSD Projects LLC	I	U
Jim Digby	The Collaborative Endeavor Group	Linkin Park Touring/The Collective	O	U
Brad Dittmer	Stage Labor of the Ozarks	Stage Labor of the Ozarks	P	U
Russ Dusek	I Weiss	I Weiss	P	MP
Don Earl	Earl Girls, Inc.	Earl Girls, Inc.	P#	DR

Name	Company	Representing	Voting status	Int cat
Patrick Finn	J.R. Clancy Inc.	Wenger Corp.	A	CP
Adrian Forbes-Black	Total Structures, Inc.	Total Structures Inc.	P	MP
Tim Franklin	Theta Consulting LLC	Theta Consulting LLC	O	G
Tony J. Galuppi	Tony J. Galuppi	Tony J. Galuppi	O	U
Mike Garl	Mike Garl Consulting LLC	Mike Garl Consulting LLC	P	DE
James M. Garner	Walt Disney Studios - Disney Theatrical Group	Walt Disney Company	O	G
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Chris Geisler	Fluid Design Inc.	Fluid Design Inc.	O	DE
Ethan William Gilson	ALPS	Advanced Lighting and Production Services	P	U
Sanford P. Gilzow	Shur-Rig LLC	Shur-Rig LLC	P	G
William B. Gorlin	McLaren Engineering Group	M.G. McLaren, P.C.	P	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Michael P. Gosenski	Rigging Systems LLC	Rigging Systems LLC	O	U
Erin Grabe	ESTA	ESTA	exf	G
Pat Grenfell	Hoist Sales & Service	Hoist Sales & Service	P	DR
Rod Haney	I.A.T.S.E. Local 891	I.A.T.S.E. Local 891	P	U
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
Sean Harding	Port Lighting Systems	Port Lighting Systems	O	G
Greg Hareld	Kleege Industries	Kleege Industries	O	U
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Chris Higgs	Total Solutions Group	Total Solutions Group	O	G
Jeremy Hochman	Full Throttle Films/ VER	Full Throttle Films/ VER	O	DR
Jeremy Hodgson	Cirque Du Soleil, Inc.	Cirque Du Soleil, Inc.	P	U
Donald Hoffend_III	Avista Designs, LLC	Avista Designs, LLC	P	G
Joseph Jeremy	Niscon Inc.	Show Distribution Group, Inc.	P	MP
Ted Jones	Art Drapery Studios	Grand Stage	P	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	O	G
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	DR
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Nevin Kleege	Kleege Industries	Kleege Industries	O	U
Jerald Kraft	JTH Lighting Alliance	JTH Lighting Alliance	P	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U

Name	Company	Representing	Voting status	Int cat
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	P	G
Tom Lapp	Cirque Du Soleil, Inc.	Cirque Du Soleil, Inc.	A	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Jon Lenard	Applied Electronics	Applied Electronics	A	MP
Michael Lichter	Electronic Theatre Controls, Inc. (DE)	Electronic Theatre Controls, Inc.	A	MP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	U
Daniel H. Louis	Theta Consulting LLC	Theta Consulting LLC	P	G
Wendy Manson	Cirque Du Soleil, Inc.	Cirque Du Soleil, Inc.	O	U
Magali Marcheschi	Polytechnic Montreal	Polytechnic Montreal	O	G
Joseph McGeough	Flying by Foy	Foy Inventerprises, Inc.	A	CP
Bob McVay	Schuler Shook	Schuler Shook	A	DE
Sam Michael	Thern, Inc.	Thern, Inc.	P	MP
Steven Michelman	Entertainment Project Services, LLC	Entertainment Project Services, LLC	A	DE
Orestes Mihaly	Production Resource Group	Production Resource Group	P	DR
Jeff T. Miller	Worldwide Standards and Auditing	Walt Disney Company	A	U
Rick Montgomery	R&M Materials Handling	R&M Materials Handling	P	MP
John P. Moore	Hall Associates Flying Effects	Hall Associates Flying Effects	A	CP
Bartholomew J. Mueller	Recreation Engineering Inc.	Recreation Engineering Inc.	O	DE
Bob Murphy	Occams Razor Technical Services	Occams Razor Technical Services	O	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Jim Niesel	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	P	DE
Richard J. Nix	ZFX Flying, Inc.	ZFX Flying, Inc.	P	G
Shawn Nolan	Production Resource Group	Production Resource Group	A	DR
Tracy Nunnally	Hall Associates Flying Effects	Hall Associates Flying Effects	P	CP
Jennifer O'Leary	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Kimberly Corbett Oates	Schuler Shook	Schuler Shook	P	DE
Carlos Ortega	PSAV Presentation Services	PSAV Presentation Services	P	U
Gregory Orth	WNP Services, Inc.	WNP Services, Inc.	P	DR
Edward A. (Ted) Paget	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	O	MP
Miriam Paschetto	Geiger Engineers	Geiger Engineers	P	G
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	O	CP
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	A	DR
Kurt Pragman	Pragman Associates, LLC	Pragman Associates, LLC	O	G

Name	Company	Representing	Voting status	Int cat
Galen Price	Blue Man Group	Blue Man Group	P	U
Steven Ricks	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Mark Riddlesperger	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
John Ringelman	Stage Rigging, Inc.	Freeman Companies	P	DR
Heather Rowe	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	A	U
Karl G. Ruling	ESTA	ESTA	exf	G
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services, Inc.	Scheu Consulting Services, Inc.	P	DE
Chris Schmidt	Stage Rigging, Inc.	Freeman Companies	A	DR
Joseph S. Schuster	Simpson Gumpertz & Heger	Simpson Gumpertz & Heger	P	DE
Ford Sellers	Chauvet Lighting	Chauvet Lighting	O	MP
Steven Serafin	Chubb Group of Insurance Companies	Chubb Group of Insurance Companies	P	G
Steven C. Shaw	Levitating Productions, Inc.	Levitating Productions, Inc.	O	MP
Harold Ike Shippers	Syracuse Scenery & Stage Lighting Co.Inc.	Syracuse Scenery & Stage Lighting Co.Inc.	A	DR
Q. Brian Sickels	Q. Brian Sickels	Q. Brian Sickels	O	G
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	O	CP
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP
Russell Solomon	Texas Scenic Company	Texas Scenic Company	A	DR
Todd Spencer	PSAV Presentation Services	PSAV Presentation Services	A	U
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Peter V. Svitavsky	J.R. Clancy, Inc.	Wenger Corp.	P	CP
Ross Taylor	Taylor & Taylor Associates	Taylor & Taylor Associates	O	G
Ken Tilson	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Will Todd	Tomcat USA, Inc.	Milos Group	P	MP
James Tomlinson	Team Tomlinson	Team Tomlinson	P	G
Stephen Vanciel	IATSE Local 631	IATSE Local 631	O	U
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Michael Wells	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	P	MP
Marty Wesstrom	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	A	MP
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	P	DE
Max A. Wilson	Applied Electronics	Applied Electronics	P	MP

Name	Company	Representing	Voting status	Int cat
Stephan Jon Wood	Stage Technologies	Tait Towers Manufacturing LLC	P	CP
Nicholas Gill Wright	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Paul Zagajeski	J.R. Clancy, Inc.	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