

Minutes
Rigging Working Group
Friday, 15 July 2016
Roosevelt Hotel
45 E 45th St, New York, NY 10017
Vanderbilt Room, 2nd FL

Presiding co-chairperson: Bill Sapsis; Sapsis Rigging, Inc.; P; U

Recording secretaries: Erin Grabe and Karl G. Ruling; ESTA

Members in attendance:

Mike Adamovich; McLaren Engineering Group; M.G. McLaren, P.C.; A; G
Jesse Adams; Rose Brand; P; DR
Frank Allison; McLaren Engineering Group; M.G. McLaren, P.C.; A; G
Matthew Antonucci; Contract Services Administration Trust Fund; P; U
Ian Bevan; Walt Disney Parks and Resorts; Walt Disney Company; A; U
Keith Bohn; I; G
Dan Culhane; SECOA; P; CP
Bruce Darden; Rigging Innovators, Inc.; P; CP
Jonathan Deull; JSD Projects LLC; I; U
Russ Dusek; I Weiss; P; MP
Don Earl; Earl Girls, Inc.; P; DR
Mike Garl; Mike Garl Consulting LLC; P; DE
Ethan William Gilson; ALPS; Advanced Lighting and Production Services; P; U
William B. Gorlin; McLaren Engineering Group; 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
Herb Hart; Columbus McKinnon Corp.; A; MP
Jeremy Hochman; Full Throttle Films/ VER; O; DR
Jeremy Hodgson; Cirque Du Soleil, Inc.; P; U
Ted Jones; Art Drapery Studios; P; U
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; Applied Electronics; A; MP
Dan Lisowski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; P; U
Daniel H. Louis; Theta Consulting LLC; P; G
Orestes Mihaly; Production Resource Group; P; DR
Jim Niesel; Theatre Projects Consultants, Inc.; P; DE
Richard J. Nix; ZFX Flying, Inc.; P; G
Tracy Nunnally; Hall Associates Flying Effects; P; CP
Kimberly Corbett Oates; Schuler Shook; P; DE
Carlos Ortega; PSAV Presentation Services; P; U
Gregory Orth; WNP Services, Inc.; P; DR
Chris Schmidt; Stage Rigging, Inc.; Freeman Companies; A; DR
Joseph S. Schuster; Simpson Gumpertz & Heger; P; DE
Steven Serafin; Chubb Group of Insurance Companies; P; G
Harold Ike Shippers; Syracuse Scenery & Stage Lighting Co.Inc.; A; DR
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
Elmer Veith; Total Structures - Eastern US Sales Office; Total Structures, Inc.; A; MP

Steve Walker; Steve A. Walker & Associates; P; G
R. Duane Wilson; George C. Izenour Associates; Amer. Society of Theatre Consultants; P; DE
Max A. Wilson; Applied Electronics; P; MP
Stephan Jon Wood; Stage Technologies; Tait Towers Manufacturing LLC; P; CP

Visitors:

Karen Butler; Suddenly Scenic
Monique Corbeil; CITT
Pierre Gendreau; Theta Consulting
Ted Moore; Tait Stage Technologies

1 Opening remarks

Bill Sapsis called the meeting to order at 9:06 a.m. Eastern Time. He offered thanks to all in attendance for participating, adding that the effort is very much appreciated. He concluded his opening remarks by saying that the everyone here is doing really great work for this group.

2 Attendance and membership

2.1 Introductions of those present and taking attendance

Self-intros went around the table counterclockwise, as well as a sign-in sheet.

2.2 Call for quorum

A supermajority was announced present by Bill Sapsis.

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

The following voter has missed the last three meetings and was moved to observer.

Scott Battaglia; LMG Inc.; P; DR

2.5 Processing of new membership and change in status requests:

As of 29 June 2016, the following applications and requests were received:

Eric Rouse; Denver Center for the Performing Arts; P; G (Applied for Principal, but accepted as Observer due to lack of attendance)

Bartholomew J. Mueller; Recreation Engineering Inc.; Observer to Principal; DE (Requested Principal status, but remained as Observer due to lack of attendance)

Frank Allison; McLaren Engineering; A; G

Mike Adamovich; McLaren Engineering; A; G

Eddie Kramer moved to approve the applications, with members not present being accepted as observers. The motion was seconded. The motion was approved with a combination of voice votes and raised hand buttons on-line.

2.6 Consensus body

The full consensus body of this 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

Name	Representing	Voting status	Interest category
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
Pat Grenfell	Hoist Sales & Service	P	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	P	U
Rod Haney	I.A.T.S.E. Local 891	P	U
Russ Dusek	I Weiss	P	MP
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

Name	Representing	Voting status	Interest category
Scott Battaglia	LMG Inc.	P	DR
William B. Gorlin	M.G. McLaren, P.C.	P	G
Frank Allison	M.G. McLaren, P.C.	A	G
Mike Adamovich	M.G. McLaren, P.C.	A	G
Mike Garl	Mike Garl Consulting LLC	P	DE
Will Todd	Milos Group	P	MP
Charlie Weiner	Milos Group	A	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
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

Name	Representing	Voting status	Interest category
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
Voting Status Key: P = Principal voter, A = Alternate voter, I = Individual voter			
Votes by Interest Category:			
Custom-market producer		CP	8
Designer		DE	7
Dealer or rental company		DR	13
General interest		G	12
Mass-market producer		MP	11
User		U	15
Total votes possible:			66

3 Approval of minutes from the previous meeting

See the draft minutes of the March meeting, *RIGmin03-2016.pdf*.

Dan Culhane moved to approve the minutes of the March meeting. The motion was seconded and approved unanimously.

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.

Nothing was revealed.

4.2 Reading of the call for patents

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

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

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

Nothing was revealed.

5 Approval of the agenda

Eddie Kramer moved to approve the agenda as drafted. The motion was seconded and approved by a show of hands.

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

See *BSR_E1-4-1_ThrdRvwCmmntResols DRAFT.pdf* and *BSR_E1_4-1-201x_2014-2029r6.pdf*.

Richard Nix noted that the draft resolutions and draft standard were distributed for consideration. He then moved to approve the comment resolutions. The motion was seconded. There was no further discussion. By a show of hands in the room and on WebEx, the motion passed with supermajority approval.

Bruce Darden moved to approve the draft standard as an American National Standard. The motion was seconded. A letter ballot will be issued to the working group.

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

From the draft March minutes:

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.

Ethan Gilson said that the draft standard was sent to TSP staff for distribution to the working group. The task group is seeking comments from the working group by Labor Day, with the intent to take action in Las Vegas.

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

See draft standard *BSR_E1-4-3-201x_Rig-2015-2022r4.pdf*.

Richard Nix spoke, saying that the draft standard was distributed for consideration. He moved to offer the document for public review. The motion was seconded. Steve Walker voiced his concerns with the draft, including no hoist-mounting, the apparent cut and paste from other standards, and the inclusion of certain topics that don't apply to manually operated hoist rigging systems. After some further discussion, the motion carried with two opposed and one abstention.

6.6 BSR E1.6-1 - 201x, Entertainment Technology--Powered Hoist Systems (revision, reaffirmation, or withdrawal by 2017)

See Cover letter, 1st draft of E1.6-1.pdf, and draft standard, E1-6-1_Rig-2006-2011r6 6-16-16_ShowTrackedChanges.pdf. At this time, the task group is seeking comments on the subject matter, and not on formatting and/or typos.

Bruce Darden thanked Bill Sapsis for putting together such an excellent task group. The task group is asking for comments from the working group on the draft standard before Labor Day, with the intent of taking action at LDI.

Bruce continued by saying that the scope was changed to remove capstan winches, due to the fact that there are too many variables associated. Additionally, drill-drive is not being considered a powered hoist system.

The task group is seeking subject matter experts (SME) on controls. Roger Lattin spoke to the common use of capstans in Hollywood. He is concerned, and will have some SMEs look at the draft.

Bruce Darden clarified the concern with capstan winches, saying that exclusions would need to be added to many, many clauses. He said that the task group brought up the idea of doing a separate document, perhaps in another suite or as a part of this one.

Bill Sapsis spoke, saying that if there is a segment of the industry that is not being represented, there is a need to bring it into the fold. Karl Ruling added that a statement at the top of the control section excluding capstans from applying to the control sections would suffice, instead of exceptions written into each clause.

Comments may be sent to the task group directly, or delivered to TSP staff to be forwarded, by Labor Day.

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 (reaffirmation project)

See BSR_E1-15_PubRvwCmmntSmmry.pdf and E1-15_RWG_RecircBallotSmmry.pdf, distributed on 13 April and 29 April, respectively. See E1-15_2006R201x.pdf and BSR_E1-15_PubRvwDraftResols.pdf. Are we ready to move forward on this?

Richard Nix said that everyone should have received a copy of the draft resolutions. He then moved to approve draft resolutions. The motion was seconded and carried with one abstention. There was no further action

required by the working group, as the letter ballot was already completed, concurrent with the public review. A letter ballot will be issued to the Technical Standards Council.

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 reported that E1.21 was proposed for inclusion in the list of ICC reference standards and chapter 31 of the International Fire Code. The final vote is in a few weeks.

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

See E1-22_RWGRecircBallotResults2016-2008r1.pdf. Comments on the working group ballot need to be resolved.

Dan Culhane spoke to working group letter ballot comments, and then offered the group a non-substantive change to an annex note in the draft standard. The consensus of the group was that this change was acceptable and satisfied the comments from voters on the letter ballot. Dan Culhane then moved to approve the change to the draft standard. The motion was seconded and approved, with no abstentions or opposition. A letter ballot will be issued to the Technical Standards Council.

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

No news or action at this time.

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)

Mike Garl spoke to the project request approved by the Technical Standards Council that was submitted by the Control Protocols Working Group. He noted that the intention is for the task group to be comprised of members from both the CPWG and RWG. Dan Lisowski said that anyone interested in participating in the task group should approach him to get involved.

6.17 Rigging Glossary

No news or action at this time.

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

See the summary of the RWG ballot to approve E1.47 as an ANS, E1-47_WG_RecircBallotResults2016-2009r1.pdf; a copy of the current draft standard, BSRE1-47_Rig-2014-2003r4-1.pdf; and proposed resolutions to voters' comments, BSRE1-47_Rig-2014-2003r4-1.pdf.

In addition, TSP staff have identified the requirement in clause 5.1.6 as being a restraint of trade issue. The clause must be modified or struck from the draft standard.

Pete Svitavsky spoke to the comments received on the letter ballot and the draft resolutions that were distributed. Clause 5.1.6 was then modified to the consensus of the working group. Tim Hansen moved that the draft be accepted as revised here in the meeting. The motion was seconded and approved, with one abstention.

Tim Hansen moved that the draft responses to the comments received on the working group letter ballot be accepted. That motion was seconded and carried with 5 abstentions and 34 yes votes, supermajority approval.

Karl Ruling noted that a 45 day review with only the modified clause submitted was a possibility. Eddie Kramer moved the only the modified text be offered for public review. The motion was seconded and approved with one abstention.

6.19 BSR E1.50—Video wall project

See *E1.50 Comment Resolution Notes 2016-04-10 Bill Gorlin.pdf* and *E1_50Draftcomment_resolution_notes-031616KeithBohn.pdf*, distributed on 13 April.

Richard Nix said that the document is well on its way to being cleaned up and ready for distribution to the working group. There was discussion on the title of the document. Eddie Kramer moved to revise the title to Entertainment Technology – Safety Requirements for the structural support of LED, Video, & Display systems. The motion carried with six abstentions and two against.

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

See *BSR_E1-56_RevwSmmry.pdf*, distributed on 25 May.

Chris Schmidt addressed the group by saying that there were no comments received during the public review, but that the task group had identified an error in omitting a definition for “rigging point.” The task group is modifying the draft some more, and would like internal comments from the working group by Labor Day.

7 New business

Dan Lisowski said that the Automation Vector Transmission Protocol task group would be meeting at 2pm. Any interested individuals are welcome to attend.

8 Other business and announcements

Rod Haney noted that IATSE 891 has entrenched ETCP requirements into contracts.

8.1 Above & Beyond Awards

Bill Sapsis said that the nomination site for the Above & Beyond Awards is open year round at estalink.us/aboveandbeyond.

8.2 CEN standards update

No report.

8.3 Investors in Innovation

Bill Sapsis noted the need for more financial support for the Technical Standards Program. Mike Garl added a big thanks to the members in the room that are already Investors in Innovation.

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

Nothing to report.

9 Schedule for future meetings

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

9.1 LDI 2016

Bill Sapsis said that LDI 2016 is the weekend of 21-23 October and the TSP meetings dates are scheduled for 19-21 October. It was noted that LDI is in the Center Hall and the meetings will NOT be at the Westgate. The meeting location will be shared with the working groups as soon as it is known.

9.2 January 2017 meetings

Bill Sapsis said that the January 2017 meeting dates have been confirmed for 19-22 January 2017 at the D/FW Marriott Solana in Westlake, TX.

10 Adjournment

Richard Nix moved to adjourn. The motion was seconded. Hearing no objections, Bill Sapsis declared the meeting adjourned at 11:10 a.m. Eastern Time.

Name	Company	Representing	Voting status	Int cat
Mike Adamovich	McLaren Engineering Group	M.G. McLaren, P.C.	A	G
Jesse Adams	Rose Brand	Rose Brand	P	DR
Tracie Allen	R&M Materials Handling	R&M Materials Handling	A	MP
Frank Allison	McLaren Engineering Group	M.G. McLaren, P.C.	A	G
Matthew Antonucci	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	P	U
William Ian Auld	Auld Entertainment	Auld Entertainment	O	U
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 Inventerprises, 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
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	G
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
Patrick Finn	J.R. Clancy Inc.	Wenger Corp.	A	CP

Name	Company	Representing	Voting status	Int cat
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
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
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

Name	Company	Representing	Voting status	Int cat
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
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
Eric Rouse	Denver Center for the Performing Arts	Denver Center for the Performing Arts	O	G
Heather Rowe	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	A	U

Name	Company	Representing	Voting status	Int cat
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
Charlie Weiner	Tomcat USA	Milos Group	A	MP
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
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