

**MINUTES**  
**Rigging Working Group**  
Thursday, 24 January 2013  
Marriott Solana  
Westlake, TX

**Chairman:** Bill Sapsis; Sapsis Rigging, Inc.; P; U

**Recording secretary:** Karl G. Ruling; PLASA

**Members attending:**

Woody Pyeatt; A V Pro, Inc.; P; DR  
William Bradburn; Aerial Arts, Inc.; P; U  
R. Duane Wilson; George C. Izenour Associates, representing ASTC; P; DE  
Art Zobal; Columbus McKinnon Corp.; A; MP  
Edward A. (Ted) Paget; Daktronics Automated Rigging Solutions (Daktronics Inc.); P; CP  
Michael Lichter; Electronic Theatre Controls, Inc.; P; MP  
Joseph McGeough; Flying by Foy (Foy Invention Enterprises, Inc.); P; CP  
Rocky Paulson; Stage Rigging, Inc. (Freeman Companies); P; DR  
Miriam Paschetto; Geiger Engineers; P; G  
Tracy Nunnally; Hall Associates Flying Effects; O; CP  
Ed Garstkiewicz; Harting Inc., North America (Harting KGAA); P; G  
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  
Tray Allen; James Thomas Engineering, Inc.; P; MP  
William Beautyman; Limelight Productions, Inc.; P; DR  
Charlie Weiner; LMG Inc.; P; DR  
William B. Gorlin; McLaren Engineering Group (M.G. McLaren, P.C.); P; G  
Pat Grenfell; Mainstage Theatrical Supply, Inc.; P; DR  
Mike Garl; Tomcat USA, Inc. (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  
Rick Montgomery; R&M Materials Handling; P; MP  
Jesse Adams; Rose Brand; P; DR  
Kimberly Corbett; Schuler Shook; P; DE  
Dan Culhane; SECOA; P; CP  
Brad Dittmer; Stage Labor of the Ozarks; P; U  
Mark Ager; Stage Technologies (Stage Technologies Group Ltd.); P; CP  
Steve Walker; Steve A. Walker & Associates; P; G  
Richard J. Nix; Entertainment Structures Group; P; G  
Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co., Inc.; P; DR  
Jerry Gorrell; Theatre Safety Programs; P; G  
Jeff Wilkowski; Thern, Inc.; P; MP  
Dan Lisowski; Dept. Of Theatre and Drama (University of Wisconsin - Madison); P; U  
Earle T. Greene; Walt Disney Parks and Creative Entertainment (Walt Disney Company); A; U  
Michael Wells; Xtreme Structures and Fabrication; P; MP  
Joseph Champelli; ZFX Flying Inc.; P; CP

**Visitors:**

Frank Ritti; Walt Disney Parks & Resorts  
Jason S. Waller; James Thomas Engineering  
Erin Grabe; PLASA

## 1 Opening remarks

Sapsis called the meeting to order at 19:06. He noted Frank Willard's untimely death. He did not ask for a moment of silence because he said he thought it would not have been what Frank would have wanted.

## 2 Attendance and membership

### 2.1 Introduction of those present

Those present introduced themselves.

### 2.2 Circulation of attendance sign-in sheet

A bright green sign-in sheet was circulated.

### 2.3 Call for quorum

Sapsis asked for a show of hands of voters. He counted them and announced that a quorum was present, indeed, enough to pass a supermajority vote.

### 2.4 Requirements for membership

Bill Sapsis reminded the assembly that 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. However, 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.

### 2.5 Changes of membership status resulting from lack of attendance.

The following voters and their alternates have missed the last two consecutive meetings, and will be moved to observer status if they miss this one:

Ron Bonner; PLASA EU; General interest

Bonner was not present. Sapsis announced that he was moved to observer status

### 2.6 Processing of new membership requests

Frank Allison; Observer; General interest  
Jeff Lucas; Cirque Du Soliel, Inc.; Observer; General interest  
Charlie Weiner; LMG; Principal; DR (present)  
Todd Spencer; PSAV Presentation Services; Principal; User (not present)  
Eric Rouse; Penn State University; Principal; User (not present)  
Earle T. Greene; Walt Disney Company; Alternate; User

Pat Grenfell asked to be moved back to principal voting status.

Dan Culhane moved that the membership requests be accepted, except that those asking for voting status but not present be accepted as an observers. The motion was seconded and then approved with a show of hands.

### 2.7 Consensus body

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

Name	Representing	Voting status	Int. cat.
Woody Pyeatt	A V Pro, Inc.	P	DR
Ethan William Gilson	Advanced Lighting and Production Services	P	U
William Bradburn	Aerial Arts, Inc.	P	U

Name	Representing	Voting status	Int. cat.
Steven C. Shaw	Aerial Rigging	P	DR
Wendy Holt	Alliance of Motion Picture and Television Producers	P	G
R. Duane Wilson	Amer. Society of Theatre Consultants	P	DE
David Bond	Arcofab	P	U
Robert Young	Arup	P	DE
James Niesel	Arup	A	DE
Donald A. Hoffend_Jr.	Avista Designs, LLC	P	G
Donald Hoffend_III	Avista Designs, LLC	A	G
Herb Hart	Columbus McKinnon Corp.	P	MP
Shawn Sack	Columbus McKinnon Corp.	A	MP
Art Zobal	Columbus McKinnon Corp.	A	MP
Edward A. (Ted) Paget	Daktronics Inc.	P	CP
Michael Lichter	Electronic Theatre Controls, Inc.	P	MP
Dana Bartholomew	Fisher Technical Services, Inc.	P	CP
Scott Fisher	Fisher Technical Services, Inc.	A	CP
Joseph McGeough	Foy Invention Enterprises, Inc.	P	CP
Rocky Paulson	Freeman Companies	P	DR
John Ringelman	Freeman Companies	A	DR
Miriam Paschetto	Geiger Engineers	P	G
Reid Neslage	H & H Specialties Inc.	P	MP
Ed Garstkiewicz	Harting KGAA	P	G
Howard Forryan	Harting KGAA	A	G
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
John (Jack) Miller	I Weiss	P	CP
Tray Allen	James Thomas Engineering, Inc.	P	MP
Jonathan Deull	JSD Projects LLC	I	U
William Beautyman	Limelight Productions, Inc.	P	DR
Charlie Weiner	LMG Inc.	P	DR
William B. Gorlin	M.G. McLaren, P.C.	P	G
Pat Grenfell	Mainstage Theatrical Supply	P	DR
Keith Bohn	Milos Group	P	MP
Will Todd	Milos Group	A	MP
Mike Garl	Milos Group	A	MP
Vincent J. Cannavale	Motion Laboratories	P	CP

Name	Representing	Voting status	Int. cat.
Peter Herrmann	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	A	CP
Gregory Quinkert	Motion Laboratories	A	CP
Marty Wesstrom	Mountain Productions Inc.	P	DR
Joseph Jeremy	Niscon Inc.	P	CP
Tim Hansen	Oasis Stage Werks	P	DR
Orestes Mihaly	Production Resource Group	P	DR
Shawn Nolan	Production Resource Group	A	DR
Rick Montgomery	R&M Materials Handling	P	MP
Troy Post	R&M Materials Handling	A	MP
Bruce Darden	Rigging Innovators, Inc.	P	CP
Jesse Adams	Rose Brand	P	DR
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Kimberly Corbett	Schuler Shook	P	DE
Joshua Grossman	Schuler Shook	A	DE
Dan Culhane	SECOA	P	CP
Brad Dittmer	Stage Labor of the Ozarks	P	U
Mark Ager	Stage Technologies Group Ltd.	P	CP
Patrick Leigh Bettington	Stage Technologies Group Ltd.	A	CP
Steve Walker	Steve A. Walker & Associates	P	G
Richard J. Nix	Steven Schaefer Associates	P	G
Kyle Kusmer	Steven Schaefer Associates	A	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Stephen G. Surratt	Texas Scenic Company	P	DR
Rick Rosas	Texas Scenic Company	A	DR
Joel A Guerra	Texas Scenic Company	A	DR
Jerry Gorrell	Theatre Safety Programs	P	G
Jeff Wilkowski	Thern, Inc.	P	MP
Adrian Forbes-Black	Total Structures Inc.	P	MP
Elmer Veith	Total Structures, Inc.	A	MP
Theresa Kelley	Total Structures Inc.	A	MP
Kandie Koed	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
Earle T. Greene	Walt Disney Company	A	U

Name	Representing	Voting status	Int. cat.
Peter V. Svitavsky	Wenger Corp.	P	CP
Rodney F. Kaiser	Wenger Corp.	A	CP
Michael Wells	Xtreme Structures and Fabrication	P	MP
Mark Newlin	Xtreme Structures and Fabrication	A	MP
Joseph Champelli	ZFX Flying Inc.	P	CP
Stu Cox	ZFX Flying Inc.	A	CP
<b>Total votes possible</b>		<b>54</b>	
Votes by interest categories		11	CP
		3	DE
		12	DR
		8	G
		9	MP
		11	U

### 3 Approval of minutes from the previous meeting

See the draft minutes of the 17 October 2012 meeting, *RIGmin10-2012.pdf*.

Eddie Kramer moved that the draft minutes be accepted as written. The motion was seconded and then approved with a show of hands.

### 4 PLASA declarations

#### 4.1 Anti-trust statement

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

"The PLASA Board of Directors, the Technical Standards Council, and the leadership of this working group will reject or nullify any actions that unlawfully restrain trade. Anyone who feels that such an action is being or has been taken is requested to bring that matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or PLASA chair immediately.

"PLASA legal counsel has informed us that violations of the anti-trust laws can have serious consequences. Individuals engaged in certain unlawful conduct can be found criminally liable. An individual convicted of a criminal violation of the Sherman Act may be fined as much as \$1,000,000 and imprisoned for up to ten years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

No restraint of trade problems were brought to the attention of the assembly.

#### 4.2 Call for patents

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

"PLASA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. PLASA uses a process of open patent and copyright disclosures to implement its intent. PLASA 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 or 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**

Ted Paget moved that the draft agenda be accepted. The motion was seconded and then approved with a show of hands.

## **6 Old business**

### **6.1 ANSI E1.1 - 2012, wire rope ladders**

*It's published. Any news or action needed?*

No news or action.

### **6.2 BSR E1.2 - 201x, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers**

*News on the ANSI submittal. It was submitted 21 December.*

Karl Ruling reported that it had been approved by ANSI on January 15.

### **6.3 ANSI E1.4 - 2009, Entertainment Technology--Manual Counterweight Rigging Systems**

*It's published. Any news or action needed?*

No news or action.

### **6.4 ANSI E1.6-1 - 2012, Entertainment Technology--Powered Hoist Systems**

*It's published Any news or action needed?*

No news or action.

### **6.5 BSR E1.6-2, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry**

*News, if any. It's in public review through January 28.*

No news.

### **6.6 ANSI E1.6-3 - 2012, Safe Use of Electric Chain Hoists in the Entertainment Industry**

*It's published. Any news or action needed?*

No news or action.

### **6.7 BSR E1.6-4, Control of Electric Chain Hoists in the Entertainment Industry**

*News, if any. It's in public review through January 28.*

Ruling reported that one comment had been received so far.

### **6.8 BSR E1.8 - 201x, Entertainment Technology--Loudspeaker Enclosures Intended for Overhead Suspension--Classification, Manufacture and Structural Testing**

*News on the ANSI submittal. It was submitted 21 December.*

Karl Ruling reported that it had been approved by ANSI on January 15.

### **6.9 ANSI E1.15 - 2006 (R2011), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies**

*It's published. Any news or action needed?*

No news or action.

### **6.10 BSR E1.21 - 201x, Temporary Ground-Supported Overhead Structures Used To Cover Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events**

*Addressing the second public review comments.*

Richard Nix moved that the draft resolutions be approved. (Document number Rig/2013-2001r1, file name "BSR\_1-21-ScndRvwResols.pdf.") The motion was seconded. There was discussion.

The response for 36, 38, 41 and 42 both had language about improving on the requirements. The consensus was that ", which may be improved upon at the user's discretion" shall be removed in each.

Rocky Paulson objected to the response to comment 39, and suggested that

"Note: OSHA requires a Factor of Safety of Two. Only scaffolds are required to "support at least 4 times the maximum intended load." And this is not 4 times the code design load but the "maximum intended load" which is different. The design load required by the governing building code could easily exceed this OSHA requirement."

be removed.

Chris Kaiser suggested that in the resolution to 32, the phrase "Exceeding this minimum is the prerogative of the AHJ's, engineers, manufacturers, users, etc." should be removed.

Richard Nix amended his motion to include the above changes.

The motion was approved with three abstentions, none opposed, and the rest (35) voting in favor by a show of hands.

Richard Nix moved that a revised draft E1.21 standard implementing the approved resolutions be approved for public review. The vote will be done by letter ballot when the document is available. The motion was seconded. This action was approved by a supermajority with a show of hands.

#### **6.11 ANSI E1.22 - 2009, Entertainment Technology - Fire Safety Curtain Systems**

*It's published. Any news or action needed?*

No news or action.

#### **6.12 BSR E1.39 - 20xx, Entertainment Technology –Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry**

*See E1-39\_ThrdRvwCmmnts-Resolutions.pdf; BSRE1-39-2012-11-16.pdf; SendingResolsToRWG.pdf; RinusBakker\_respondsE1-39.pdf and BarryBrazell\_respondsE1-39.pdf. The last two documents are in response to Rocky Paulson's request, "we would like the Rigging Working Group's opinion and advise regarding increasing the design factor for modular trussing when workers are required to access supported or suspended structures."*

Rocky Paulson explained the issue. One commenter says that 4:1 is required by OSHA for structures that support people. That isn't true, but 4:1 is required for scaffolding and window-washing platforms. There was a discussion of how OSHA inspectors might consider an aluminum truss structures. Paulson found that if the trusses are considered like a beam, 4:1 is not required, but if it is part of a scaffolding structure, it is.

William Gorlin argued that a 4:1 is appropriate for the live load--the intended load--and not for the dead load (self-weight) plus the live load. A lower design factor would be appropriate for equipment and the self-load. The criterion for failure, he suggested, should be ultimate failure, not yield.

There was further discussion, but there was no motion and no consensus emerged.

Rocky Paulson moved that the draft responses be accepted. The motion was seconded. There was further discussion. There was discussion and some of the resolutions were modified. By show of hands, the motion failed to achieve the supermajority required to approve resolutions. (In addition to being more than 50% of the entire voting body, the yes votes must outnumber the no votes cast by two to one. This latter requirement was not met.)

Kimberly Corbett moved that the task group, in its meeting tomorrow, take direction from this discussion. The motion was seconded and passed with a show of hands.

### **6.13 BSR E1.43 - 201x, Live performer flying effect standard**

*Progress report. William Gorlin.*

William Gorlin reported that the task group had met from 9:00 a.m. to 5:00 p.m. today and will do more work tomorrow. They had a good discussion, mainly about harnesses. They have much work to do, but are making progress.

Bill Sapsis asked for a draft of the standard to be presented at the next working group meeting. Gorlin agreed.

### **6.14 BSR E1.44 – 201x, Common Show File Exchange Format for Entertainment Industry Automation Control Systems -- Stage Machinery**

*See the draft standard, E1-44\_StageMachineryShowfile\_2012-2055.pdf.*

Michael Lichter reported. His task group had received four comments from the working group on the draft standard. He proposed that the comments be addressed as public review comments.

Lichter moved that the draft standard be offered for public review. The motion was seconded and then approved with a unanimous show of hands.

### **6.15 Rigging Glossary**

*Progress report from Chris Kaiser.*

Chris Kaiser reported that her task group members had pledged to proceed with this project. She asked for a meeting time at the USITT Conference. She said that they had a list of about 25 definitions. Bill Sapsis said he would work with Frances Thompson to arrange a meeting time.

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

*Progress report from Chris Kaiser.*

Chris Kaiser said that she has a database of companies that do inspections. She asked for a task group to help her with the project. The following people volunteered:

- Bill Beautyman
- Woody Pyeatt
- Pete Svitavsky

### **7 New business**

None.

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

Karl Ruling asked for a volunteer to replace William Gorlin on his risk assessment panel at USITT. Richard Nix volunteered.

### **9 Schedule for future meetings**

Sapsis announced that the next working group meeting is scheduled for Friday evening, 22 March 2013 at the Hyatt Regency Milwaukee.

### **10 Adjournment**

Ted Paget moved that the meeting adjourn. The motion was seconded. The motion was approved with a show of hands. Sapsis declared the meeting adjourned at 21:11.



### Working Group Members as of 4 February 2013

Name	Company	Representing	Voting status	Int. cat.
Jesse Adams	Rose Brand	Rose Brand	P	DR
Mark Ager	Stage Technologies	Stage Technologies Group Ltd.	P	CP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Frank Allison	Frank Allison	Frank Allison	O	G
Brent Armstong	Brent Armstong	Brent Armstong	O	U
William Ian Auld	Auld Entertainment	Auld Entertainment	O	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	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	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	P	CP
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	O	G
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Maria Bement	MGM Grand	MGM Grand	O	U
Patrick Leigh Bettington	Stage Technologies Group Ltd.	Stage Technologies Group Ltd.	A	CP
Roy Bickel	Roy Bickel	Roy Bickel	O	G
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Steve (BOZ) Bodzioch	LMG Inc.	LMG Inc.	O	G
Keith Bohn	Tomcat USA, Inc.	Milos Group	P	MP
David Bond	Arcofab	Arcofab	P	U
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	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
Barry Brazell	Barry Brazell	Barry Brazell	O	U
André Broucke	André Broucke	André Broucke	O	G
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP

Name	Company	Representing	Voting status	Int. cat.
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	O	DR
Joseph Champelli	ZFX Flying Inc.	ZFX Flying Inc.	P	CP
Daniel J. Clark	Clark-Reder Engineering, Inc.	Clark-Reder Engineering, Inc.	O	G
Benjamin Cohen	Reed Rigging, Inc.	Reed Rigging, Inc.	O	DR
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	O	MP
Gregory C. Collis	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Kimberly Corbett	Schuler Shook	Schuler Shook	P	DE
Stu Cox	ZFX Flying Inc.	ZFX Flying Inc.	A	CP
Dan Culhane	SECOA	SECOA	P	CP
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Randall W. A. Davidson	Risk International & Associates, Inc.	Risk International & Associates, Inc.	O	U
Robert Dean	ZFX Flying Inc.	ZFX Flying Inc.	O	DR
François Deffarges	Nexo	Nexo	O	MP
Cristina Delboni	Feeling Structures	Feeling Structures	O	MP
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
Noga Eilon-Bahar	Eilon Engineering Industrial Weighing Systems	Eilon Engineering Industrial Weighing Systems	O	MP
James B. Evans	Mountain Productions Inc.	Mountain Productions Inc.	O	DR
Scott Fisher	Fisher Technical Services, Inc.	Fisher Technical Services, Inc.	A	CP
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP
Howard Forryan	Harting Ltd.	Harting KGAA	A	G
Tim Franklin	Theta-Consulting	Theta-Consulting	O	G
Luca Galante	Alfa System Sas	Alfa System Sas	O	CP
Mike Garl	Tomcat USA, Inc.	Milos Group	A	MP
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Ethan William Gilson	ALPS	Advanced Lighting and Production Services	P	U
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Rand Goddard	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Reuben Goldberg	Technic Services	Technic Services	O	U

Name	Company	Representing	Voting status	Int. cat.
William B. Gorlin	McLaren Engineering Group	M.G. McLaren, P.C.	P	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Thomas M. Granucci	Associated Students, Cox Arena	San Diego State University	O	U
Earle T. Greene	Walt Disney Parks and Creative Entertainment	Walt Disney Company	A	U
Pat Grenfell	Mainstage Theatrical Supply, Inc.	Mainstage Theatrical Supply	P	DR
Joshua Grossman	Schuler Shook	Schuler Shook	A	DE
Joel A Guerra	Texas Scenic Company	Texas Scenic Company	A	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	High Output, Inc.	High Output, Inc.	O	G
Greg Hareld	Kleege Industries	Kleege Industries	O	U
Dean Hart	Stage Rigging, Inc.	Freeman Companies	O	U
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Ben Hayes	Freedom Flying	Freedom Flying	O	G
Marc Hendriks	Prolyte	Prolyte	O	MP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Ted Hickey	OAP Audio Products	OAP Audio Products	O	MP
Chris Higgs	Total Solutions Group	Total Solutions Group	O	G
Wendy Holt	AMPTP/CSATF	Alliance of Motion Picture and Television Producers	P	G
Daniel Lynn Houser	Real Rigging Solutions, LLC	Real Rigging Solutions, LLC	O	U
Donald Hoffend_III	Avista Designs, LLC	Avista Designs, LLC	A	G
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	CP
Joseph Jeremy	Niscon Inc.	Niscon Inc.	P	CP
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	O	MP
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	O	G
Donald A. Hoffend_Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	DR

Name	Company	Representing	Voting status	Int. cat.
John Kaes	John Kaes	John Kaes	O	U
Rodney F. Kaiser	J.R. Clancy Inc.	Wenger Corp.	A	CP
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
JoAnna Kamorin-Lloyd	Vincent Lighting Systems	Vincent Lighting Systems	O	U
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
Nevin Kleege	Kleege Industries	Kleege Industries	O	U
Kandie Koed	Total Structures Inc.	Total Structures Inc.	A	MP
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	A	G
Ken Lager	Pook, Diemont & Ohl, Inc.	Pook, Diemont & Ohl, Inc.	O	DR
Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Eugene Leitermann	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	O	G
Jon Lenard	Applied Electronics	Applied Electronics	O	MP
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	DR
Mylan Lester	Creation Logics Ltd.	Creation Logics Ltd.	O	U
Michael Lichter	Electronic Theatre Controls, Inc. (DE)	Electronic Theatre Controls, Inc.	P	MP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	U
Baer Long	Ninja Rigging	Act 1 Rigging Inc.	O	G
Dennis J. Lopez	Automatic Devices Co.	Automatic Devices Co.	O	MP
Jeff Lucas	Cirque Du Soleil, Inc.	Cirque Du Soleil, Inc.	O	G
Darren Lucier	North Guard Fall protection Inc.	North Guard Fall protection Inc.	O	U
Sam Lunetta	Michael Andrews	Michael Andrews	O	DR
Gary Mardling	Kish Rigging	Kish Rigging	O	DR
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	MP
Joseph McGeough	Flying by Foy	Foy Invenerprises, Inc.	P	CP
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	DR
Orestes Mihaly	Production Resource Group	Production Resource Group	P	DR
Hank Miller	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
John (Jack) Miller	I Weiss	I Weiss	P	CP

Name	Company	Representing	Voting status	Int. cat.
Jeff T. Miller	Worldwide Standards and Auditing	Walt Disney Company	A	U
Shaun Millington	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Timothy Mills	Geiger Engineers	Geiger Engineers	O	G
Scott Mohr	R&R Cases and Cabinets	R&R Cases and Cabinets	O	G
Rick Montgomery	R&M Materials Handling	R&M Materials Handling	P	MP
John "Andrew" Munro	animaenagerie	animaenagerie	O	U
Bob Murphy	Occams Razor Technical Services	Occams Razor Technical Services	O	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Mark Newlin	Xtreme Structures and Fabrication	Xtreme Structures and Fabrication	A	MP
Rikki Newman	Rikki Newman	Rikki Newman	O	U
James Niesel	Arup	Arup	A	DE
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Shawn Nolan	Production Resource Group	Production Resource Group	A	DR
Tracy Nunnally	Hall Associates Flying Effects	Hall Associates Flying Effects	O	CP
Edward A. (Ted) Paget	Daktronics Automated Rigging Solutions	Daktronics Inc.	P	CP
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	P	DR
G. Anthony Phillips	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	U
Phillip J. Piszczak	The National Telephone Supply Company	The National Telephone Supply Company	O	G
Troy Post	R&M Materials Handling	R&M Materials Handling	A	MP
Michael Powers	Central Lighting & Equipment, Inc.	Central Lighting & Equipment, Inc.	O	DR
Kurt Pragman	Pragman Associates, LLC	Pragman Associates, LLC	O	G
Woody Pyeatt	A V Pro, Inc.	A V Pro, Inc.	P	DR
Gregory Quinkert	Motion Laboratories	Motion Laboratories	A	CP
Michael Reed	Reed Rigging, Inc.	Reed Rigging, Inc.	O	DR
Mark Riddlesperger	LA ProPoint, Inc.	LA ProPoint, Inc.	O	CP
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Timo Risku	Akumek	Akumek	O	DE
Rick Rosas	Texas Scenic Company	Texas Scenic Company	A	DR

Name	Company	Representing	Voting status	Int. cat.
Eric Rouse	Pennsylvania State University	Pennsylvania State University	O	U
Shawn Sack	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services, Inc.	Scheu Consulting Services, Inc.	O	G
Peter "Punch" Christian Schmidtke	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	O	DR
Steven C. Shaw	Performance Rigging Systems	Aerial Rigging	P	DR
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	O	CP
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	O	CP
William Scott Sloan	William Scott Sloan	William Scott Sloan	O	U
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	O	CP
Todd Spencer	PSAV Presentation Services	PSAV Presentation Services	O	U
Michael L. Savage, Sr.	Middle Dept. Inspection Agency, Inc.	Middle Dept. Inspection Agency, Inc.	O	G
Rob Stevenson	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	MP
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Andy Sutton	AFX UK Ltd.	AFX UK Ltd.	O	U
Peter V. Svitavsky	J.R. Clancy Inc.	Wenger Corp.	P	CP
Will Todd	Tomcat USA, Inc.	Milos Group	A	MP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	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
Bill Waters	Conductix-Wampfler	Conductix-Wampfler	O	MP
Charlie Weiner	LMG Inc.	LMG Inc.	P	DR
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.	P	MP
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	P	DE
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Robert Young	Arup	Arup	P	DE
Art Zobal	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP

**Voting Status Key:**

- P principal voting representative
- A alternate voting representative
- I individual voter
- O observer, non-voting

**Interest Category Key:**

- CP custom-market producer
- DE designer of installations that use rigging products
- DR dealer or rental company
- G general interest
- MP mass-market producer
- U user