

Minutes
Rigging Working Group
Wednesday, 22 October 2008
Harrah's Las Vegas
Las Vegas, NV

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

Secretary: Karl G. Ruling; ESTA

Members attending:

William Bradburn; Aerial Arts, Inc.; P; U
Wendy Holt; Alliance of Motion Picture and Television Producers; P; G
William Conner; Bill Conner Associates LLC, representing the American Society of Theatre Consultants; P; U
Jon Lenard; Applied Electronics; P; MP
James Niesel; ARUP; P; G
Donald A. Hoffend, Jr.; Avista Designs, LLC; P; G
Charlie Weiner; P; U
Don Dimitroff; Columbus McKinnon Corp.; P; MP
Edward A. (Ted) Paget; Vortek Rigging Division (Daktronics Inc.); A; CP
M. Brad Dittmer; Downhome Productions; P; U
Michael Lichter; Electronic Theatre Controls GmbH (Electronic Theatre Controls); O; MP
Rocky Paulson; Stage Rigging, Inc. (Freeman Companies); P; DR
John Ringelman; Stage Rigging, Inc. (Freeman Companies); A; DR
Joseph Champelli; Fisher Technical Services, Inc. (FTSI); P; CP
Reid Neslage; H & H Specialties Inc.; P; MP
Peter "Punch" Christian Schmidtke ; Hollywood Lighting Services, Inc. (Hollywood Lighting, Inc.); P; DR
Kent H. Jorgensen; IATSE Local 80; P; G
Peter V. Svitavsky; J.R. Clancy Inc.; P; CP
Rodney F. Kaiser; J.R. Clancy Inc.; A; CP
Tray Allen; James Thomas Engineering, Inc.; A; MP
Harvey Sweet; LA ProPoint, Inc.; P; DR
William Beautyman; Limelight Productions, Inc.; P; DR
Bob Medve; Limelight Productions, Inc.; A; DR
Michael J. Carnaby; Mikan Theatricals; P; DR
Vincent J. Cannavale; Motion Laboratories; P; CP
Shawn Sack; Mountain Productions Inc.; P; DR
Ron Bonner; PLASA; P; G
Steven Graham; R&M Materials Handling; P; MP
Joe Ingle; R&M Materials Handling; A; MP
Bruce Darden; Rigging Innovators, Inc.; P; CP
Peter A. Scheu; Scheu Consulting Services; P; G
Dan Culhane; SECOA; P; CP
Knut Skjonberg; Skjonberg Controls, Inc.; P; CP
Monica Skjonberg; Skjonberg Controls, Inc.; A; CP
Nathan Wells; Stage Technologies; P; MP
Steve Walker; Steve A. Walker & Associates; P; G
Richard J. Nix; Entertainment Structures Group (Steven Schaefer Associates); P; G
Daniel J. Clark; Entertainment Structures Group (Steven Schaefer Associates); A; G
Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co.; P; DR
Stephen G. Surratt; Texas Scenic Company; P; DR
Eugene Leitermann; Theatre Projects Consultants, Inc.; P; G
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 - Eastern US Sales Office (Total Structures, Inc.); A; MP
Pete Happe; Walt Disney Imagineering (Walt Disney Company); P; U

Visitors: Alan Rowe; IATSE Local 728
Scott Johnson; James Thomas Engineering

1 Opening remarks

Bill Sapsis called the meeting to order at 19:04 and welcomed all to "Lost Wages." He then gave some opening remarks, the gist of which is:

- Sapsis addressed the rumors that some say he is "pushing standards." This is not true. He wants to get the documents done, but he does not want them to be moved on to public review or to publication until they are ready.
- Sapsis reminded task groups that their job is to put the documents together so that the working group can approve or modify them; their job is not to get the documents all done, perfect. If there are problems, the Rigging Working Group is the place to bring the problems to get past the jams.
- Sapsis said that he will in the future limit task groups to six, and people will only serve on one task group.
- Sapsis said that he expects people involved in the Technical Standards Program to act professionally and to treat each other with respect.

2 Attendance and membership

2.1 Introduction of those present

Those present introduced themselves.

2.2 Circulation of attendance sign-in sheet

A hot-pink attendance sign-in sheet was circulated.

2.3 Call for quorum

(44 voting members: 15 needed for a quorum, 23 to pass a supermajority vote)

Bill Sapsis asked voting members to hold up their hands (one voter per voting entity). He and Kent Jorgensen each counted 36 voters present. Bill Sapsis announced that we had a quorum and business could be conducted.

2.4 Requirements for membership

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

"Membership is open to all who are affected by the work of the group. People who would be in the dealer/rental company or user interest groups are particularly encouraged to join. However, voting members are required to attend meetings. Any principal member and voting alternate who both miss three consecutive meetings will have their membership status changed to observer. This action will be taken as the last item of business at each meeting and recorded in the minutes of that meeting."

3 Processing of new membership requests

Applications as of 6 October 2008:

Wendy Holt; Alliance of Motion Picture & Television Producers; principal; general interest
Peter Christian Schmidtke (aka "Punch"); Hollywood Lights, Inc.; principal; dealer/rental company

Brad Dittmer moved that their applications be accepted. The motion was seconded and then approved with a unanimous show of hands.

The consensus body during this meeting, including those not present, was:

Name	Company	Representing	Voting status	Int. cat.
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Wendy Holt	AMPTP	Alliance of Motion Picture and Television Producers	P	G
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P	U
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	A	U
Jon Lenard	Applied Electronics	Applied Electronics	P	MP
James Niesel	ARUP	ARUP	P	G
Donald A. Hoffend, Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Charlie Weiner	Charlie Weiner	Charlie Weiner	P	U
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Pat Grenfell	Vortek	Daktronics Inc.	P	CP
Robert Voss	Vortek	Daktronics Inc.	A	CP
Jake Winkelman	Vortek	Daktronics Inc.	A	CP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	A	CP
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	P	DR
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Joseph Champelli	Fisher Technical Services, Inc.	FTSI	P	CP
Dana Bartholomew	Fisher Technical Services	FTSI	A	CP
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Peter "Punch" Christian Schmidtke	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	P	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	P	G
Peter V. Svitavsky	J.R. Clancy Inc.	J. R. Clancy Inc.	P	CP
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP
Harvey Sweet	LA ProPoint, Inc.	LA ProPoint, Inc.	P	DR
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Bob Medve	Limelight Productions, Inc.	Limelight Productions, Inc.	A	DR

Name	Company	Representing	Voting status	Int. cat.
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Shawn Sack	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Spencer Brown	Oasis Stage Werks	Oasis Stage Werks	A	DR
Ron Bonner	PLASA	PLASA	P	G
Steven Graham	R&M Materials Handling	R&M Materials Handling	P	MP
Joe Ingle	R&M Materials Handling	R&M Materials Handling	A	MP
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G
Joshua Grossman	Schuler Shook	Schuler Shook	A	G
Dan Culhane	SECOA	SECOA	P	CP
Jerald Kraft	SECOA	SECOA	A	CP
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	P	CP
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	A	CP
Nathan Wells	Stage Technologies	Stage Technologies	P	MP
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	A	G
Daniel J. Clark	Entertainment Structures Group	Steven Schaefer Associates	A	G
Jeff Reder	Entertainment Structures Group	Steven Schaefer Associates	A	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Eugene Leitermann	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	P	G
Steve Sweet	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	A	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP

Name	Company	Representing	Voting status	Int. cat.
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
		Total votes	44	
		Votes by interest category	7	CP
			8	MP
			9	DR
			9	U
			11	G

4 Approval of minutes from the previous meeting

See Rig/2008-2011, file name RIGmin07-2008.pdf.

Dan Culhane moved that the draft minutes of the July meeting be accepted as written. The motion was seconded and then approved with a show of hands.

5 ESTA declarations

5.1 Anti-trust statement

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

"The ESTA Board of Directors, the Technical Standards Committee, 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 ESTA president immediately.

"ESTA 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."

Karl Ruling, the Technical Standards Manager, held up one of the easy-to-read pamphlets to show its availability. No restraint of trade issues were brought to the attention of the assembly.

5.2 Call for patents

The following statement was read aloud to the assembly by the presiding chairman, 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 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."

No protected intellectual property was brought to the attention of the assembly.

6 Approval of the agenda

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

7 Old business

7.1 ANSI E1.1-2006, wire rope ladders revision

No news or action.

7.2 ANSI E1.2-2006, aluminum towers and trusses revision

No news or action.

7.3 BSR E1.4, manual rigging systems

7.3.1 Consideration of approval of the draft comment resolutions

(See E1-4NinthRevwDraftResols.pdf and Comment29_Objection.pdf.)

Bill Conner moved that the draft comment resolutions be modified as follows:

Substitute for the substantiation for action of reject on comment number 4: "This is a tested definition and does not preclude the circumstances in the proposal. You are a competent person by soliciting expertise to identify hazards and taking action to fix it; a consultant is the competent person by identifying the hazard and directing you to fix it." The record of past comments and actions is not available. Substantiation should be complete and not reference unavailable material. Also, we should take every opportunity to explain this concept and the intent rather than simply digging in.

The motion was seconded. The motion was approved with a show of hands, with three voting no, eight abstentions, and the rest (28) voting in favor, which was a supermajority.

Bill Conner moved:

Delete first line of substantiation for comment 5 and also the word "furthermore" in the resolution. The comment addresses the standard and the foreword is not a part of the standard.

The motion was seconded and then approved with a show of hands, with seven abstentions and the rest (32) voting in favor.

Brad Dittmer moved:

Substitute for the substantiation for comment 5 the following: "There is no requirement in this standard that should not be applied to existing systems, albeit that in many cases compliance will be based on equivalency and alternate materials and so on. No one should willingly allow pre-existing rigging to be in service if it cannot meet the minimal performance criteria of this standard."

The motion was seconded and then approved with a show of hands, with one voting no, five abstaining, and the rest (33) voting in favor.

Wendy Holt moved:

Delete the last line of the substantiation of comment 14 "Guide track is not intended to support loads."

The motion was seconded and then approved with a show of hands, with seven abstentions and the rest (32) voting in favor.

Dan Culhane moved:

Include in substantiation to comment 14: "The T and J are a prescriptive design standard commonly used and other shapes simply must be measured against how a T or J of the prescribed size performs."

The motion was seconded. The motion failed with nine voting in favor, 11 abstentions, and the rest (19) voting No.

Bill Conner moved:

Change the action on comment 16 to "Reject." The proposed resolution is a substantive change in that the lines no longer have to be plumb. As substantiation for the rejection: "Reject. The intent of the requirement is for all of the lines acting as a group and the group shall be plumb."

The motion was seconded and then approved with a show of hands, with two opposed, seven abstentions, and the rest (30) voting in favor.

Bill Conner moved:

Add to the substantiation of comment 22: "The table values are, as indicated, "suggested", and not a normative part of the standard."

The motion was seconded and then approved with a show of hands, with none opposed, ten abstaining, and the rest (29) voting in favor.

Bill Conner moved:

In comment 23, change the action to accept in principle, and, in formatting the document for publication, make these figures a part of an annex or more clearly apart from section 6. Since, per ANSI style, these figures are not a normative part of the standard, this is not a substantive change.

The motion was seconded and then approved with a show of hands, with none opposed, 12 abstaining, and the rest (27) voting in favor.

Bill Conner moved:

Add to the substantiation for comment 25: "These are illustrations of typical systems and they are not normative parts of the standard."

The motion was seconded and then approved with a show of hands, with none opposed, five abstaining, and the rest (34) voting in favor.

Bill Conner moved:

Accept comment 27.

The motion was seconded and then approved with a show of hands, with none opposed, four abstaining, and the rest (35) voting in favor.

Gene Leiterman moved that comment 29 resolution be changed to "accept."

The motion was seconded and then approved with a show of hands, with one opposed, three abstaining, and the rest (35) voting in favor.

Bill Conner moved that we accept the comment resolutions as amended. The motion was seconded. The motion was approved with a show of hands with none opposed, one abstention, and the rest (38) voting in favor.

7.3.2 Consideration of accepting the revised draft standard

Richard Nix moved that E1-4 r16 as amended by the changes to the resolutions document made by the actions in 7.3.1 be accepted as an American National Standard. The motion was seconded. The motion will be decided by letter ballot to allow voting members a chance to review the modified document.

7.4 BSR E1.6-1, powered winch hoist systems

Harvey Sweet reported that they are making progress and have the goal of having the Rigging Working Group review a document in March 2009.

7.5 BSR E1.6-2, electric chain hoists

7.5.1 Consideration of draft public review comment resolutions

Dan Culhane moved that the comment resolutions (see Resols4thRevwE1-6-2.pdf) be accepted. The motion was seconded. There was no discussion. The motion was approved with a show of hands, with two abstaining, none opposed, and the rest in favor.

7.5.2 Consideration of the response to the comments from Ernie Marburg

(See MarburgE1-6Resols.pdf.) Dan Culhane moved that the comments to Ernie Marburg's privately submitted comments be accepted. the motion was seconded. The motion was approved with a show of hands, with five abstaining, none opposed, and the rest in favor.

7.5.3 Consideration of accepting the revised draft standard

(See E1_6-2_2005-2040r4.pdf.) Dan Culhane moved that the revised draft of BSR E1.6-2 be accepted as an American National Standard. The motion was seconded. The question will be decided by letter ballot.

7.6 BSR E1.6-3, Safe Use of Serially Manufactured Electric Chain Hoists in the Entertainment Industry

Charlie Weiner said the project is making tremendous headway. A draft will be ready for the working group to consider for a public review vote in January 2009.

7.7 BSR E1.6-4, Control of Serially Manufactured Electric Chain Hoists in the Entertainment Industry

Vincent Cannavale reported that the task group will meet tomorrow (Thursday, 23 October). The task group is making progress, with a deliverable expected sometime early next year.

7.8 ANSI E1.8-2005, speaker enclosures for rigging standard

No news or action.

7.9 ANSI E1.15-2006, boom & base assemblies

No news or action.

7.10 ANSI E1.21-2006, portable roof systems

No news or action.

7.11 BSR E1.22, fire safety curtain systems

7.11.1 Consideration of public review comment resolutions

(See the draft comment resolutions E1-22_5th_RvwResols.pdf.)

Harvey Sweet moved that the draft comment resolutions be accepted. The motion was seconded. The motion was accepted by a supermajority on a show of hands, with three abstentions, none opposed, and the rest (35) voting in the affirmative.

7.11.2 Consideration of adopting BSR E1.22 as an American National Standard

(See E1-22_2002-2032r9.pdf a revised draft of BSR E1.22.) Harvey Sweet moved that BSR E1.22 be accepted as an American National Standard. Seconded. The motion will be decided by letter ballot.

There was a brief discussion of the need to change "fire curtain" to "fire safety curtain." The consensus was that this would be an editorial correction, since no one could reasonably think the subject of the standard is curtains made of fire.

Howard Ott's objections to the standard, which had been distributed to the working group via email on 16 October, were discussed. The working group did not find that his objections were a reason to change the draft proposed standard.

7.11.3 Arup fire modeling project progress report

Jim Neisel reported that the project is in the hands of the fire engineers. They are calibrating the model. A preliminary report should be available in January. They are moving ahead with a variety of sizes of fuel loads.

8 New business

8.1 Proposal for a "Recommended practice for safe use of manually operated chain hoists in the entertainment industry when lifting or lowering a continuous structure"

(See ManualHoistProposal.pdf, a proposal from Claude Sergerie, the audiovisual supervisor at the Palais des congrès de Montréal.)

Dan Culhane moved that we reject the project. The motion was seconded. The motion was accepted by a supermajority of the working group on a show of hands, with three abstaining and the rest (35) voting in favor of the motion to reject the project.

8.2 Proposal for a "Proposed System of Labeling Unknowns for Use by Teachers of Entertainment Rigging Math"

(See Unknowns-r1.pdf.) Rocky Paulson, the author of Unknowns-r1.pdf, explained the problem that people all over the country use different letters for the variables in the rigging formulas, which makes teaching rigging math and vetting people's work difficult.

Karl Ruling suggested the document could be a Protocol article. Jerry Gorrell suggested that USITT might take it up as a standards project, since standards for teaching are part of their work.

The consensus was that this is not a project that this working group wants to take up as a standards-drafting project.

9 Other business and announcements

None.

10 Schedule for future meetings

Bill Sapsis announced that the next meeting is scheduled for Saturday, 24 January 2009, from 19:00 to 23:00 at the Dallas/Ft. Worth Marriott Solana at 5 Village Circle in Westlake, Texas.

11 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:

William Bradburn; Aerial Arts
Charlie Weiner
Rocky Paulson and John Ringelman; Stage Rigging
Steven Graham and Joe Ingle; R&M Materials Handling

All were present so there were no changes in voting status.

12 Adjournment

Brad Dittmer moved that the meeting adjourn. The motion was seconded. Bill Sapsis asked if there were any objections to declaring the meeting adjourned. Hearing no objections, Sapsis declared the meeting adjourned at 20:55.

Working Group Membership and Contact Information as of 4 November 2008

Name	Company	Representating (Primary sort field.)	Voting status	Int. cat.
Baer Long	Ninja Rigging	Act 1 Rigging Inc.	O	G
Andre Broucke	ADB - TTV Technologies	ADB-TTV Group	O	MP
William Bradburn	Aerial Arts, Inc.	Aerial Arts, Inc.	P	U
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	O	U
Andy Sutton	AFX UK Ltd.	AFX UK Ltd.	O	U
Wendy Holt	AMPTP	Alliance of Motion Picture and Television Producers	P	G
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P	U
R. Duane Wilson	George C. Izenour Associates	Amer. Society of Theatre Consultants	A	U
Jim Fletcher	American Sling Company, Inc.	American Sling Company, Inc.	O	MP
Jon Lenard	Applied Electronics	Applied Electronics	P	MP
James Niesel	ARUP	ARUP	P	G
Dennis J. Lopez	Automatic Devices Co.	Automatic Devices Co.	O	MP
Donald A. Hoffend, Jr.	Avista Designs, LLC	Avista Designs, LLC	P	G
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Buddy Braille	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	MP
Charles E. Gorgen	Charles E. Gorgen	Charles E. Gorgen	O	G
Charlie Weiner	Charlie Weiner	Charlie Weiner	P	U
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U
Julie Rogers	City of Phoenix Civic Plaza	City of Phoenix	O	G
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Herb Hart	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Mylan Lester	Creation Logics Ltd.	Creation Logics Ltd.	O	U
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	O	G
Pat Grenfell	Vortek	Daktronics Inc.	P	CP
Robert Voss	Vortek	Daktronics Inc.	A	CP
Jake Winkelman	Vortek	Daktronics Inc.	A	CP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	A	CP
Harry Donovan	Donovan Rigging, Inc.	Donovan Rigging, Inc.	O	G
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	CP
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
Noga Eilon-Bahar	Eilon Engineering Industrial Weighing Systems	Eilon Engineering Industrial Weighing Systems	O	MP
Michael Lichter	Electronic Theatre Controls GmbH	Electronic Theatre Controls	O	MP
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	O	G
Cristina Delboni	Feeling Structures	Feeling Structures	O	MP
Ben Hayes	Freedom Flying	Freedom Flying	O	G
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	P	DR
Dean Hart	Stage Rigging, Inc.	Freeman Companies	O	U
John Ringelman	Stage Rigging, Inc.	Freeman Companies	A	DR
Joseph Champelli	Fisher Technical Services, Inc.	FTSI	P	CP
Dana Bartholomew	Fisher Technical Services	FTSI	A	CP
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
Timothy Mills	Geiger Engineers	Geiger Engineers	O	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Delbert Hall	Hall Associates Inc.	Hall Associates Inc.	O	U
Peter "Punch" Christian Schmidke	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	P	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
G. Anthony Phillips	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	U
Gregory C. Collis	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Michael Dileso	IATSE Local 481	IATSE Local 481	O	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	P	G
Peter V. Svitavsky	J.R. Clancy Inc.	J. R. Clancy Inc.	P	CP
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP

Name	Company	Representating (Primary sort field.)	Voting status	Int. cat.
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	MP
John Kaes	John Kaes	John Kaes	O	U
John R. Burgess	John R. Burgess	John R. Burgess	O	U
Christopher Purpura	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Nevin Kleege	Kleeger Industries	Kleeger Industries	O	U
Harvey Sweet	LA ProPoint, Inc.	LA ProPoint, Inc.	P	DR
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Bob Medve	Limelight Productions, Inc.	Limelight Productions, Inc.	A	DR
Louis Bradfield	Louis Bradfield	Louis Bradfield	O	U
Michael L. Savage, Sr.	Middle Dept. Inspection Agency, Inc.	Middle Dept. Inspection Agency, Inc.	O	G
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR
Todd Petersen	Mixed Productions	Mixed Productions	O	U
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Shawn Sack	Mountain Productions Inc.	Mountain Productions Inc.	P	DR
James B. Evans	Mountain Productions Inc.	Mountain Productions Inc.	O	DR
Bradford A. Kegel	National Production Services Inc.	National Production Services Inc.	O	U
François Deffarges	Nexo	Nexo	O	MP
Tracy Nunnally	Northern Illinois University	Northern Illinois University	O	U
Ted Hickey	OAP Audio Products	OAP Audio Products	O	MP
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	DR
Spencer Brown	Oasis Stage Werks	Oasis Stage Werks	A	DR
Robert A. Grenier Jr.	Ocean State Rigging Systems Inc.	Ocean State Rigging Systems Inc.	O	DR
Joseph Rapier	Parkhill, Smith & Cooper, Inc.	Parkhill, Smith & Cooper, Inc.	O	CP
Ron Bonner	PLASA	PLASA	P	G
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	O	CP
Marc Hendriks	Prolyte	Prolyte	O	MP
Douglas Franz	QVC Network	QVC Network	O	U
Steven Graham	R&M Materials Handling	R&M Materials Handling	P	MP
Joe Ingle	R&M Materials Handling	R&M Materials Handling	A	MP
Scott Mohr	R&R Cases and Cabinets	R&R Cases and Cabinets	O	G
Michael Reed	Reed Rigging, Inc.	Reed Rigging, Inc.	O	U
Rinus Bakker	Rhino Rigs B.V.	Rhino Rigs B.V.	O	G
Bruce Darden	Rigging Innovators, Inc.	Rigging Innovators, Inc.	P	CP
Rikki Newman	Rikki Newman	Rikki Newman	O	U
Randall W. A. Davidson	Risk International & Associates, Inc.	Risk International & Associates, Inc.	O	U
Thomas M. Granucci	Associated Students, Cox Arena	San Diego State University	O	U
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G
Joshua Grossman	Schuler Shook	Schuler Shook	A	G
Dan Culhane	SECOA	SECOA	P	CP
Jerald Kraft	SECOA	SECOA	A	CP
Shaun Millington	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Rob Stevenson	SEW-Eurodrive, Inc.	SEW-Eurodrive, Inc.	O	MP
Knut Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	P	CP
Monica Skjonberg	Skjonberg Controls, Inc.	Skjonberg Controls, Inc.	A	CP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Nathan Wells	Stage Technologies	Stage Technologies	P	MP
Olan Cottrill	Staging Productions, Inc.	Staging Productions, Inc.	O	DR
Roger Barrett	Star Events Group Ltd.	Star Events Group Ltd.	O	DR
Steve Walker	Steve A. Walker & Associates	Steve A. Walker & Associates	P	G
Richard J. Nix	Entertainment Structures Group	Steven Schaefer Associates	P	G
Kyle Kusmer	Entertainment Structures Group	Steven Schaefer Associates	A	G
Daniel J. Clark	Entertainment Structures Group	Steven Schaefer Associates	A	G
Jeff Reder	Entertainment Structures Group	Steven Schaefer Associates	A	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	P	DR
Frank Willard	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	A	DR
Reuben Goldberg	Technic Services	Technic Services	O	U

Name	Company	Representating (Primary sort field.)	Voting status	Int. cat.
Stephen G. Surratt	Texas Scenic Company	Texas Scenic Company	P	DR
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	DR
Mark Newlin	Texas Scenic Company	Texas Scenic Company	O	DR
Eugene Leitermann	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	P	G
Steve Sweet	Theatre Projects Consultants, Inc.	Theatre Projects Consultants, Inc.	A	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Ed Nicholas	Theatrical Lighting Systems, Inc.	Theatrical Lighting Systems, Inc.	O	DR
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	DR
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	O	CP
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Tim Franklin	Theta-Consulting	Theta-Consulting	O	G
Chris Higgs	Total Solutions Group	Total Solutions Group	O	G
Adrian Forbes-Black	Total Structures Inc.	Total Structures Inc.	P	MP
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	O	MP
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	O	MP
Elmer Veith	Total Structures - Eastern US Sales Office	Total Structures, Inc.	A	MP
Theresa Kelley	Total Structures Inc.	Total Structures Inc.	A	MP
JoAnna Kamorin-Lloyd	Vincent Lighting Systems	Vincent Lighting Systems	O	U
Michael Keppler	Bogen	Vitec Group	O	MP
Mitch Clark	Tomcat USA, Inc.	Vitec Group plc	O	MP
Keith Bohn	Tomcat USA, Inc.	Vitec Group plc	O	MP
Hank Miller	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Rand Goddard	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	O	U
Robert Dean	ZFX Inc.	ZFX Inc.	O	CP

**Key to
codes:**

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

MP mass-market producer
interest category
CP custom-market producer
interest category
DR dealer or rental company
interest category
U user interest category

G general-interest interest
category