

Minutes
Followspot Position Working Group Meeting

Saturday, 15 January 2005
Dallas/Ft. Worth Airport Marriott South
Ft. Worth, Texas

Chairmen: Robin Crews; Wrightson, Johnson, Haddon & Williams, Inc.; P; G
Jack Schmidt; Strong Entertainment Lighting (Ballantyne of Omaha, Inc.); P; MP

Recording secretary: Karl G. Ruling; ESTA

Members attending: Jerry Gorrell; Theatre Safety Programs; O; U
Edwin S. Kramer; I.A.T.S.E, Local 1; P; U
Richard Logothetis; Lycian Stage Lighting; P; MP
Shawn Nolan; Entertainment Structures Group (Steven Schafer Associates); P;
G
Richard J. Nix; Performance Systems Integration; O; G
Stephen Vanciel; I; U
Chip Purchase; Jones Hall (Foundation for Jones Hall); P; U
William L. Maiman; I; G

Visitors: None.

1 Opening remarks

Jack Schmidt called the meeting to order at 19:02. Robin Crews distributed WJHW souvenir keychains with carabiners or blue LED flashlights.

2 Patent and Anti-Trust statements

2.1 Patent statement

The following was read aloud by Jack Schmidt:

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

"In keeping with the open disclosure policy, I ask if anyone present wishes to notify the Technical Standards Committee of the existence of a patent or copyright that might protect material in a standard being developed by a working group. You need not be the holder of the patent or copyright in order to notify the TSC of its existence."

No protected intellectual property issues were brought to the attention of the assembly.

2.2 Anti-trust statement

The following was read aloud by Robin Crews

"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 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 \$100,000 and imprisoned for up to three years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

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

3 Attendance & membership

3.1 Introductions

All had gotten to the meeting room early and had been conversing before the meeting started. There were also no new attendees, so the usual self-introductions were skipped.

3.2 Taking attendance

A green sign-in sheet was circulated.

3.3 Requirements for membership

Jack Schmidt reminded the assembly that membership in the working group is open to all who are affected by the work of the group. Voting members are required to attend meetings and to vote on letter ballots. Voting members and their alternates may not miss three consecutive meetings without a loss of voting status.

3.4 Determination of quorum

Jack Schmidt noted that a quorum was present so working group business could be conducted.

3.5 Processing of new membership requests

There were none.

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

Name	Company	Representing (This is the sort field.)	Voting status	Interest category
Jack Schmidt	Strong Entertainment Lighting	Ballantyne of Omaha, Inc.	P	MP
Chip Purchase	Jones Hall	Foundation for Jones Hall	P	U
Edwin S. Kramer	I.A.T.S.E, Local 1	I.A.T.S.E. Local 1	P	U
Richard Logothetis	Lycian Stage Lighting	Lycian Stage Lighting	P	MP
Fred Lindauer	Robert Juliat USA	Robert Juliat SA	P	MP
Steve Rust	Sachs Morgan Studio	Sachs Morgan Studio	P	G
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	I	U
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
William L. Maiman	William L. Maiman	William L. Maiman	I	G
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G
		Total	11	
		By interest categories	3	MP
			0	CP
			0	DR
			3	U
			5	G

4 Approval of minutes from the previous meeting

Richard Nix and Chip Purchase noted that they had been at the last meeting but had arrived late, after the attendance sheet had been circulated.

Eddie Kramer moved that the minutes be accepted with the addition of Richard Nix and Chip Purchase to the list of attendees. The motion was seconded. The motion was approved with a unanimous show of hands.

5 Approval of agenda

Stephen Vanciel moved that the agenda be approved as written. The motion was seconded. The motion was approved with a unanimous show of hands.

6 Old Business, task group reports

6.1 Section 3, Architectural — Richard Thompson, Steve Rust, Steve Vanciel

Steve Vanciel lead the discussion of the task group's work. There was a discussion of the vertical angles at which some followspots can work. Xenons tend to flicker if operated for long periods of time at McCandless vertical angles, so, although these angles may be nice for a lighting design, they restrict the kinds of equipment that can be used—at least with current market offerings. What kind of advice, if any, should be given about this?

There also was a discussion of fall protection requirements when followspots have to operate at extreme vertical angles. Jerry Gorrell pointed out that work restraints may work in some places as alternatives to guard rails, nets, or fall arrest systems,

Steve Rust had done some drawings for four different applications of followspots, and these were discussed.

A general discussion of the above issues was conducted; no motions were offered and no votes were taken.

6.2 Section 4, Structural — Shawn Nolan, Robin Crews, Jack Schmidt

Shawn Nolan distributed a rough mock-up of the document, one that included a lot of dummy text, except for section 4, which deals with structure.

Nolan pointed out that not a lot of information needed to be presented in section 4, just enough to tell the architect or structural engineer designing the building what loads he or she needs to consider. The floor loading is not extreme, but the deflection specification is for a fairly stiff floor with this loading.

Nolan noted that lateral stability also needs to be specified. Followspot positions may be suspended or cantilevered platforms that may sway sideways, and this sway needs to be limited. A little position movement may result in a lot of movement of the light beam on stage.

Nolan said his next task was to outline the access requirements. He will probably simply reference existing, well known, building codes.

Richard Logothetis said that when his company recommends that followspots be fastened to the floor if the followspot position is over people. He suggested that some guidance should be given about the desirability of this. This lead to a discussion of whether safety attachments should be required, both for the followspot and for the operator.

The group also decided that the floor should be level. A slope of no more than a quarter-inch in 10 feet is standard for a concrete floor and would be adequate.

Lamp storage requirements were also discussed. The consensus was that few lamps would be stored near the followspot. Jack Schmidt recommends a central locker; Eddie Kramer says that there is a spare lamp kept with each followspot on Broadway. In any case, lamp storage would not have a major impact on the structural requirements for a followspot position.

A general discussion of the above issues was conducted; no motions were offered and no votes were taken.

- 6.3 Section 5, Electrical** — Richard Logothetis, Eddie Kramer, Fred Lindauer
Richard Logothetis distributed a document outlining his task group's thinking on power requirements. The power requirements are classified by the length of the throw and by the connected load of the stage lights. An outlet shall be provided for each followspot and each followspot position shall have a convenience outlet. The overcurrent protection doesn't need to be near the followspot, but its location shall be readily accessible and clearly designated.

There was a lengthy discussion of the number of convenience outlets that should be supplied. The consensus was that these outlets should be dedicated to the followspot position or positions, but there wasn't consensus on how many are needed or what the ampacity should be. Eddie Kramer told stories of followspot positions being furnished with appliances as college dorm rooms often are, but there wasn't consensus that providing for this should be the concern of the facility designer.

The document also made recommendations for communications and data connections, general lighting for use during cleaning and maintenance, and task lighting for use during shows.

A general discussion of the above issues was conducted; no motions were offered and no votes were taken.

- 6.4 Section 6, Ventilation** — Chip Purchase, Jerry Gorrell, Jack Schmidt
Chip Purchase reported that his task group is researching ventilation standards and has been having troubling getting access to the standards as well as identifying them. Shawn Nolan said that an HVAC colleague of his will help with this, but that he's on the road and not in the office until January 19. Nolan said that he will pursue this when his colleague returns.

Robin Crews said that the HVAC expert on a job is going to want to know what the maintained room temperature is supposed to be, how much heat is going to be added to the room, how many air exchanges an hour are required, and how much outside air is to be brought in with each exchange. To make sure of this, he will ask some mechanical engineers he works with to see what information they need for their planning.

Richard Logothetis pointed out that some followspots are directly vented. That is, the hot air from the luminaire is exhausted into a hose leading outside the followspot position. For these, the replacement air into the position must match the amount that the luminaire is designed to exhaust, or the luminaire's exhaust rate will not be met. Other followspots are not designed for direct venting and vent simply into the room. For these the volume of the exhaust air is not an issue, only the amount of heat produced is.

The followspot position must be kept within a temperature range that is comfortable for the human operator. Modern followspot electronics are designed to shut down at 40 degrees C, which is three degrees above normal body temperature; therefore, the limiting factor is the operator's comfort, not the luminaire's maximum design temperature.

A general discussion of the above issues was conducted; no motions were offered and no votes were taken.

7 New Business

None.

8 Other Business

Robin Crews asked about what kind of style should be used for this document. The group seemed to be happy with the usual ESTA standard style, although other styles that might make the document look more authoritative to other interest groups, such as architects, were discussed.

Karl Ruling suggested that the basic ESTA style is good for creating at least the draft document because it allows people to write simple paragraphs in a logical order without worrying about transitions. It can be modified or rewritten later into any other style. The first thing is to get what is needed to be said down on paper (or on the computer screen) in a logical order.

A general discussion of the above issues was conducted; no motions were offered and no votes were taken.

9 Schedule of future meetings and action items

Jack Schmidt announced that the next meeting is scheduled for Friday, 18 March 2005, from 19:00 to 23:00, at the Fairmont Royal York Hotel in Toronto. The following meeting will be July 30 at the Dallas/Ft. Worth Airport Marriott.

10 Adjournment

Richard Logothetis moved that the meeting adjourn. The motion was seconded. The motion was approved by acclamation. Robin Crews declared the meeting adjourned at 21:39. Jack Schmidt thanked all for making this a productive meeting.

Working Group Membership and Contact Information as of 2005-01-17

Name	Company	Representing	Int. Cat.	Voting status
Jack Schmidt	Strong Entertainment Lighting	Ballantyne of Omaha, Inc.	MP	P
Chip Purchase	Jones Hall	Foundation for Jones Hall	U	P
Edwin S. Kramer	I.A.T.S.E., Local 1	I.A.T.S.E. Local 1	U	P
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	G	O
Richard Logothetis	Lycian Stage Lighting	Lycian Stage Lighting	MP	P
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	G	O
Fred Lindauer	Robert Juliat USA	Robert Juliat SA	MP	P
Steve Rust	Sachs Morgan Studio	Sachs Morgan Studio	G	P
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	U	I
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	G	P
John Tedesco	The Phoebus Company, Inc.	The Phoebus Company, Inc.	MP	O
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	U	O
Richard D. Thompson	Thompson Associates	Thompson Associates	G	P
William L. Maiman	William L. Maiman	William L. Maiman	G	I
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	G	P

Key to codes:

P	principal	MP	mass-market producer
A	alternate	CP	custom-market producer
I	individual	DR	dealer or rental company
O	observer	U	user
		G	general interest