

**Minutes**  
**Technical Standards Committee**  
Sunday, 27 January 2008  
Dallas/Ft. Worth Airport Marriott South  
Ft. Worth, TX

**Chairman:** Mike Garl; James Thomas Engineering, Inc.; P

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

**Members attending:**

Eugene Leitermann; Theatre Projects Consultants, Inc., representing Amer. Society of Theatre Consultants; A  
Steve Terry; Electronic Theatre Controls, Inc.; P  
Edwin S. Kramer; I.A.T.S.E. Local 1; P  
Ken Vannice; Colortran (Leviton Manufacturing Co., Inc.); P  
Mike Wood; Mike Wood Consulting LLC; P  
Ron Bonner; PLASA; A  
Bill Groener; PRG Systems Integration Group ; P  
Mitch Hefter; Entertainment Technology (Royal Philips Electronics); P  
Bill Sapsis; Sapsis Rigging, Inc.; P  
Richard Cadena; Projection, Light & Staging News (Timeless Communications Corp.); P  
Jerry Gorrell; Theatre Safety Programs, representing USITT; P  
Louis Bradfield, representing USITT; A  
Lori Rubinstein; ESTA; ex officio

**Visitors:** Kent Jorgensen; IATSE Local 80  
Roger L. Lattin; IATSE Local 728  
Alan M. Rowe; IATSE Local 728

**1 Opening remarks**

The meeting was called to order at 09:00 by Mike Garl.

Garl announced that Richard Cadena had been offered a seat on the TSC and had accepted. Cadena was not present at the very start of the meeting, because his flight had been delayed. Garl said Cadena had called from the airport and would be joining the meeting soon. He did.

**2 Attendance and membership**

**2.1 Taking attendance**

A blue attendance sign-in sheet was circulated. Garl noted that a quorum was present.

**2.2 Welcome to visitors**

Mike Garl welcomed the visitors.

**2.3 Introductions**

Those present introduced themselves.

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

Name	Company	Representing	Voting status
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P
Eugene Leitermann	Theatre Projects Consultants, Inc.	Amer. Society of Theatre Consultants	A
Larry Schoeneman	Designlab Chicago, Inc.		P
Steve Terry	Electronic Theatre Controls, Inc.		P
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)		P
Edwin S. Kramer	I.A.T.S.E. Local 1		P
Mike Garl	James Thomas Engineering, Inc.		P
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P
Mike Wood	Mike Wood Consulting LLC		P
Matthew Griffiths	PLASA		P
Ron Bonner	PLASA		A
Bill Groener	PRG Systems Integration Group (PRG)		P
Bill Sapsis	Sapsis Rigging, Inc.		P
Richard Cadena	Projection, Light & Staging News (Timeless Communications Corp.)		P
Louis Bradfield	Louis Bradfield	USITT	A
Jerry Gorrell	Theatre Safety Programs	USITT	P
Florian von Hofen	VPLT	VPLT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A
		Total votes possible	14

### 3 Approval of minutes from the previous meeting

See TSC/2007-0007, file name TSCmin11-2007.pdf.

Steve Terry moved that the minutes of the November meeting be approved. The motion was seconded and then approved with a unanimous show of hands.

### 4 Call for patents

The following statement was read aloud to the assembly by Mike Garl:

"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 the Technical Standards Committee of the existence of a patent or copyright or other intellectual property that might protect material in a standard being developed by a working group. You need not be the holder of the patent or copyright to notify the Technical Standards Committee of its existence."

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

### 5 Anti-trust statement

The following statement was read aloud to the assembly by Mike Garl:

"The ESTA Board of Directors and the leadership of this Technical Standards Committee 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 \$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 G. Ruling, the Technical Standards Manager, held up one of the easy-to-read pamphlets. No restraint of trade issues were reported to the assembly

## **6 Approval of agenda**

Items were added to the agenda:

Financial reports 8.1.4 to talk about marketing

New business, a request by Ted Paget to join the TSC.

New business, discussion of moving the LDI TSC meeting to Sunday

Under New business, a license for the camera cranes handbook

Under New business, Doug Fleenor's request for us to monitor the radio spectrum auction and its impact on our industry

Bill Sapsis moved that the amended agenda be adopted. The motion was seconded and then approved with a unanimous show of hands.

## **7 Reminder about ESTA committee contact information on the website**

Lori Rubinstein reminded people to check their contact info on the website and to send any corrections to her.

## **8 Old business and standing reports**

### **8.1 Financial reports**

#### **8.1.1 Treasurer's report**

See TSP\_Budget\_Info.PDF

Mike Wood reported a shortfall in revenue because contributions are down, but document sales have been higher than projected, which has helped make the shortfall be a little less than it might have been. Overall, we are about \$1,000 under income than projected, so ESTA will need to contribute a \$1,000 more. He noted that publication sales now bring in significant amounts of money.

There was discussion of the costs of meetings. Steve Terry said that reminding the meeting attendees of the cost is a good motivator, although attempting to cut meeting costs is not likely to reap great savings.

Steve Terry moved that the 2008 TSC budget be approved. The motion was seconded. The motion was approved with a show of hands, with all voting in favor except for one abstention.

#### **8.1.2 Status of contributions and pledges**

Lori Rubinstein reported that the check-off boxes for donations were put on the dues invoices and she's invoiced those companies that like to receive a separate invoice. She thinks the usual contributions will come in, with the question of those companies that were recently purchased by Royal Philips Electronics.

### **8.1.3 Accounting of TSP documents sold**

Lori Rubinstein reported that she had hoped to have the 4th quarter ANSI report, but didn't receive it before she left the office, so the report of document sales doesn't show that.

### **8.1.4 TSP Marketing**

Rubinstein reported that Mark Engel has been meeting in New York with Laura Quartuccio, Karl Ruling, and herself, and that these meetings have been useful. We are promoting the idea that every standard helps solve a problem, that standards help promote safety, simplicity, and savings. She directed the TSC members to view some new web pages that promote the TSP with this theme. An html email will be sent out to manufacturers.

## **8.2 Old Business**

### **8.2.1 TSM's report**

#### **8.2.1.1 Report on status of documents: ones in process, ones stable, ones needing action or of concern**

See the written report of projects, Appendix A.

#### **8.2.1.2 Documents or projects requiring action by the TSC**

What to do with the response to the Jim Read letter? See Appendix B.

Gene Leitermann moved that the response be mailed to Jim Read. The motion was seconded and approved with a unanimous show of hands. Mike Garl agreed to write a cover letter.

### **8.2.2 Optional reports by working and task group leaders present on active projects**

#### **8.2.2.1 Camera Cranes**

Kent Jorgensen reported on the early January meeting, and the work needed to get around the obstructionism of the manufacturers. Wants to split the document into three: an operator's part, a manufacturer's part, and a maintenance part. The operator's part is almost done, in that it would be based on the existing Camera Crane Operator's Handbook.

He also reported that AMPTP is interested in licensing the Operator's Handbook to use in their training program.

#### **8.2.2.2 Control Protocols**

Mitch Hefter reported that a motion has been made and seconded to offer the revised version of ANSI E1.11 for public review. The motion will be decided by letter ballot.

#### **8.2.2.3 Electrical Power**

Hefter reported that a shorter version of BSR E1.18 was approved for public review, and will come to the TSC for approval. It is now a suite of documents.

The GFCI project also has resolved a disagreement within the task group, which resulted in a changed comment resolution. A set of comment resolutions has been approved by the working group, and a motion made and accepted to offer the revised BSR E1.18 document for public review.

Ken Vannice reported that a draft set of comment resolutions for the luminaire maintenance document should be ready in time for the working group meeting at USITT.

Vannice also reported that a multi-conductor cable study group was formed. This will deal with problems with 6-circuit, 14-conductor, multipin-connector cables.

Eddie Kramer said that there was a discussion of having a working group meeting in July.

#### **8.2.2.4 Flame Resistance Task Group**

Ruling reported that the task group is working on better defining the problem, outlining just what standards now cover scenery and costumes, and which of those standards are a problem because of vague or impractical requirements.

Gene Leitermann asked about the direction of the group and the lines of communication. He questioned if they are doing what we charged them to do.

Ruling explained that he plans to handle the task group much as he would any working group. The lines of communication are, as with working groups, through him, the staff manager. He also said that the task group's preliminary study statement is good basic work.

Steve Terry supported Ruling's position, but also wanted to hear from a TSC member on the task group. Terry moved that Jerry Gorrell shall frequently and clearly convey to the TSC the sense of what is happening in this group. The motion was seconded and approved with a show of hands.

Jerry Gorrell said that he was getting up to speed on this project, and will help the task group get in touch with costumers. Terry reiterated the charge to Gorrell to shepherd this group.

#### **8.2.2.4b Floors**

Jerry Gorrell reported that the working group will vote by letter ballot on a motion to offer BSR E1.34, the floor slipperiness standard, for public review.

#### **8.2.2.5 Fog and Smoke**

Larry Schoeneman reported that the working group is not meeting this weekend. BSR E1.29, the fog product safety standard, and ANSI E1.5, the glycol and glycerin exposure standard, are in public review.

#### **8.2.2.6 Followspot Position**

Ruling reported that the working group had met and discussed some of the comments received during the public review of BSR E1.28, the followspot position planning guidance document.

Gene Leitermann spoke of the mixed feelings in the ASTC. He noted that Charles Swift is a co-chair of the working group and a member of the ASTC, but some of the ASTC membership is hostile to ESTA standards that might affect building planning. It's difficult to bring the membership together to support standards work.

#### **8.2.2.7 Photometrics**

Jerry Gorrell proposed a meeting at LDI so that we meet the one meeting a year rule. He suggested that we might also have a new project to consider by then.

#### **8.2.2.8 Rigging**

Bill Sapsis reported that with the proliferation of E1.6 projects, the Rigging Working Group is quickly becoming the Chain Hoist Working Group.

The E1.6-3 project is a concern for Sapsis. The task group has looked at CWA 25 and been influenced by it, almost adopting it. This review of CWA 25 has put them heading in a new direction.

### **8.3 Reports of affiliated organizations**

#### **8.3.1 ASTC**

No further report from ASTC.

### **8.3.2 PLASA**

Ron Bonner reported on the radio spectrum sell-off. Ofcom (the British group similar to the FCC) has come to see a possible complete market failure if the whole of the spectrum now used by analog TV is simply sold to the highest bidder. Bonner said that it has taken a couple of years of hard work to get Ofcom to see this. Ofcom is now reserving part of the spectrum, two areas of white space, for use with radio mics. This is better than a complete sell-off, but not good enough. There will be some venues in the UK, under the new plan, that will have no available spectrum. Therefore, the fight continues.

Mitch Hefter asked about the hardware. Bonner agreed that the microphones available now cannot use the frequencies proposed to be allocated without major changes. There is some talk of compensation to those companies who have to pay lots of money for refitting, but Ofcom has woefully underestimated the value of the kit that will be made useless.

Bonner also spoke about cognitive radio devices that are supposed to be able to sniff out available spectrum to download data. All of these "white space devices" have failed in tests so far. He is concerned that Microsoft will continue to push for their adoption.

Bonner reported that there's been a rewrite of the electrical regulations. BS 7909 is a subset for temporary installations, and it shortly will be available for public review.

Bonner also reported that CWA 25 is meeting for comment resolution. He couldn't make the meeting because he needs to be here, and is worried that the German contingent will dominate because they will show up and there will be too few opposing voices.

The EC's physical agents directives are going ahead. PLASA will work with the Health Protection Agency (a government agency) to introduce ways to measure optical exposure to artificial radiation. The HPA thinks that the entertainment industry and the medical industry that will be most affected by the directives. There was extensive discussion about this.

### **8.3.3 USITT**

Jerry Gorrell reported that the Engineering Commission is working on an audio graphics standard.

### **8.3.4 VPLT**

No report.

## **8.4 Reports on liaisons and news from other industry groups (These may be written)**

### **8.4.1 CANENA**

Vannice reported that they are marching on slowly. They are arguing over dimensions of cam-type single-pole connectors.

### **8.4.2 ETCP**

Lori Rubinstein reported that ETCP has issued a press release announcing that the LA Convention Center now requires rigging contractors to have their lead riggers be ETCP certified. Other news is that ETCP now has IAAM members on the Council. SHAPE is hosting a pencil and paper exam in Vancouver. Toronto, District 11, is also on board with promoting certification. ETCP is moving forward in having the exams translated into French so that it can be delivered to French-speakers in Canada and elsewhere. Rubinstein also reported that ETCP is doing a tremendous amount of direct marketing.

She expressed concern that no one has registered for the USITT exam. Bill Sapsis said that there is not a lot going on in Houston, and no reason to go to Houston other than USITT. He is not certain that the USITT constituency is the same constituency for the exam. Ruling argued that it could be a

marketed to academics as a way to gain tenure. ETCP certification shows that a person is within the top third of the industry.

Steve Terry spoke of the concern some people have that if people fail the exam, their employer will find out and will fire them. Confidentiality needs to be emphasized.

Jerry Gorrell spoke of test anxiety and said he plans to do a module at one of his workshops on how to take tests. Eddie Kramer spoke about this fear.

Lori Rubinstein said that she had filed with the Veterans Administration for the exams to be covered under the GI bill.

Mitch Hefter noted that Steve Terry is now a recognized trainer.

#### **8.4.3 ICC**

Jerry Gorrell reported that the International Code Commission will be meeting in February in Palm Springs, and that he is planning to attend. The ICC will be reviewing proposals for full revisions of their various codes.

#### **8.4.4 NFPA**

##### **8.4.4.1 NFPA 101 (Life Safety Code) and 5000 (building code)**

Jerry Gorrell reported that the current NFPA 101 revision cycle is complete, unless there are some NITMAMs (Notice of Intent to Make a Motion) approved this summer. There are no major changes.

##### **8.4.4.2 NFPA 1126 (proximate pyro) and 160 (flame effects)**

Larry Schoeneman reported no activity

##### **8.4.4.3 NFPA 70 (NEC)**

Mitch Hefter reported that the NEC handbook has been published. USITT's NEC Committee will be proposing some changes for the next revision.

##### **8.4.4.4 NFPA 80**

Jerry Gorrell reported he had sent in some proposals on the fire curtain part of the standard to clean up language. The STP (Standards Technical Panel) will meet to consider the proposals.

#### **8.4.5 SAE/FAA**

Garl noted that the TSC has Gorrell's report. (See the report in Appendix C)

Jerry Gorrell said the recommended procedure for the FAA for bright lights is complete, but that it must be put into proper editorial form by the committee chairman. In any case, the issue is not entirely over, since emerging technology must be considered.

#### **8.4.6 Others**

#### **8.5 Review of action items from last meeting not covered above**

None.

### **9 New Business**

#### **9.1 Request by Ted Paget to join the TSC.**

Steve Terry asked if there is a need to increase the size of the TSC or a particular set of skills that are lacking. The consensus was No, in both instances.

Steve Terry moved that we send Ted Paget a nice letter thanking him but saying that the TSC does not have an open position. The motion was seconded and then approved by a show of hands. Bill Groener will write the letter.

## **9.2 Move the LDI and USITT TSC meetings to the last day?**

Steve Terry said that the early meetings conflict with presentations that need to be done, particularly at USITT. Mike Wood said that it has to be outside show hours. There was discussion. The consensus was that we will keep to the traditional schedule.

## **9.3 License camera cranes handbook**

Wendy Holt, Vice President Production Affairs and Safety for the Alliance of Motion Picture and Television Producers, had sent Karl Ruling an email request on 26 January 2008 that read in part:

"I request licensing 7,000 copies of the handbook at \$0.75 per copy. All copying would be done by the Safety Pass Program. This licensing agreement would allow Safety Pass to use any or all portions of the handbook in their training program. Any portions used would receive written credit and acknowledgement."

Mike Wood moved that we accept the offer. The motion was seconded. Kent Jorgensen spoke in favor of the motion. It was approved with a unanimous show of hands.

## **9.4 Doug Fleenor request to monitor radio spectrum**

Doug Fleenor's fax was read aloud to the assembly by the Mike Garl. The fax said that he had read an article in Live Sound International, page 50, December 2007, about the loss of spectrum due to the sell off of TV frequencies. He urged support of HR 1320.

Steve Terry said that we are coming to this late, and that there are lots of sound companies and publications already on the issue. He suggested that we contact them and see what is being done, or how we can help. Ron Bonner urged us to get involved. It is never to late.

Jerry Gorrell said that the issue is more complex in North America than in the UK. Digital television narrows the band, the upper frequencies are going away, but not all the spectrum. However, many mics use this area that is being sold. Mike Wood said that that auction started two days ago.

Gorrell said that the problem is compounded by the drive to approve white space devices. We can move to the lower frequencies that will still be available, but if these devices are approved, they will make these bands a mess. The broadcast industry is against these devices because they use wireless microphones. The audio industry is against it.

Lori Rubinstein reported that the lobbying rules for associations have to become much stricter with the passage of a new law. Karl Ruling, if he engages in lobbying, would have to track his time, minute by minute, so that ESTA members would know what part of their dues are not tax deductible as business expenses. Business expenses are not tax deductible to the extent that they are used for lobbying. Rubinstein read an ASAE missive that said that we and all our members have to file papers related to lobbying.

Bonner said this is a global problem.

## **10 Other business**

None.

## **11 Schedule for future meetings**

Mike Garl announced that the next meeting is scheduled for Wednesday, 19 March 2008, from 13:00 to 17:00 at the Hilton Americas in Houston, Texas. The meeting after that will be July 18, 13:00 to 17:00 at Pace University in New York City.



Lori Rubinstein said that a small block of rooms will be available at the Club Quarters in downtown Manhattan for the Pace University meetings.

**12 Adjournment**

Mitch Hefter moved that the meeting adjourn. The motion was seconded and then approved with a unanimous voice vote. Mike Garl declared the meeting adjourned at 11:38.

**TSC Membership and Contact Information as of 26 February 2008**

Name	Company	Representing	Voting status
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P
Eugene Leitermann	Theatre Projects Consultants, Inc.	Amer. Society of Theatre Consultants	A
Larry Schoeneman	Designlab Chicago, Inc.		P
Steve Terry	Electronic Theatre Controls, Inc.		P
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)		P
Edwin S. Kramer	I.A.T.S.E. Local 1		P
Mike Garl	James Thomas Engineering, Inc.		P
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P
Mike Wood	Mike Wood Consulting LLC		P
Matthew Griffiths	PLASA		P
Ron Bonner	PLASA		A
Bill Groener	PRG Systems Integration Group (PRG)		P
Bill Sapsis	Sapsis Rigging, Inc.		P
Richard Cadena	Projection, Light & Staging News (Timeless Communications Corp.)		P
Jerry Gorrell	Theatre Safety Programs	USITT	P
Louis Bradfield	Louis Bradfield	USITT	A
Florian von Hofen	VPLT	VPLT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A

### Advisory Board

Name	Company	Address	City	State	Postal code	Country	Phone	Fax
David Johnson	Live Design (Penton Media)	249 West 17th Street, 4th Floor	New York	NY	10011	USA	1-212-204-4272	1-212-204-4288
Marian Sandberg	Live Design Penton Media	249 West 17th Street, 4th Floor	New York	NY	10011	USA	1-212-204-4272	1-212-204-4288
Mark Engel	Rosco Laboratories	52 Harbor View Avenue	Stamford	CT	06902	USA	1-203-708-8900	1-203-708-8910

## **TSM's Report on TSP Projects 14 January 2008**

### **PUBLISHED DOCUMENTS WITH NO WORK NEEDED AT THIS TIME**

Application Guide for ANSI E1.3 - 2001 Entertainment Technology Lighting Control Systems 0 to 10V Analog Control Specification (CPWG)

Camera crane operator's handbook (CCWG)

Introduction to Modern Atmospheric Effects, 4th edition (FSWG)

Nothing significant has happened in the field since this edition was published.

ANSI E1.1-2006, wire rope ladders revision (RWG)

ANSI E1.2-2006, aluminum towers and trusses revision (RWG)

ANSI E1.3 - 2001 (R2006), 0-10V analog control specification (CPWG)

ANSI E1.8-2005, speaker enclosures for rigging standard (RWG)

ANSI E1.9-2007, reporting photometric data revision (PHWG)

ANSI E1.11-2004, DMX512-A in German (CPWG)

It's published. VPLT is printing it on demand, so it can be modified to track the revision of ANSI E1.11. That is, revisions will not require the destruction of lots of unsold books.

ANSI E1.14-2001 (R2007), Recommendations for Inclusions in Fog Equipment Manuals (FSWG)

ANSI E1.15-2006, boom & base assemblies (RWG)

ANSI E1.16-2002 (R2006), Configuration Standard for Metal Halide Ballast Power Cables (EPWG)

The reaffirmation has been approved by ANSI, but, as I write this, the new version hasn't been published yet. I intend to have it published before the next issue of *Protocol* is out. There are no substantive changes; the existing version says the same important thing that the reaffirmation will say.

ANSI E1.21-2006, portable roof systems (RWG)

ANSI E1.23-2006, general fog effect planning standard (FSWG)

Yale School of Drama is using this as a text in one of its classes.

ANSI E1.24-2006, pin connector intermatability standard (EPWG)

UL has proposed adding a reference to this standard in UL 498, Standard for Safety for Attachment Plugs and Receptacles, but the motion failed because the STP did not want to approve referencing the standard without having the standard be available for their review. I sent UL a copy of the standard to use. I have heard no more.

ANSI E1.25-2006, flat-wall photometry basic conditions (PHWG)

ANSI E1.26-2006, floor energy absorption (FLWG)

ANSI E1.27-1-2006 (portable DMX512 cabling) (CPWG)

ANSI E1.35 - 2007, Lens Quality Measurements for Pattern Projecting Luminaires Intended for Entertainment Use (PHWG)

ANSI E1.36 - 2007, Model Procedure for Permitting the Use of Tungsten-Halogen Incandescent Lamps and Stage and Studio Luminaires in Vendor Exhibit Booths in Convention and Trade Show Exhibition Halls (PHWG)

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#### **PUBLISHED DOCUMENTS WITH WORK NEEDED**

Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications and The Supplement to the Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications (CPWG)

These two documents are listed together because we now sell them bundled. The first is old and covers obsolete systems. The supplement builds on the first, so we haven't gotten rid of the first. The supplement also is old, and the working group has discussed revising it, but it's not obsolete yet for what it covers, which is 100 megabit/second systems. There are faster versions of Ethernet and wireless available now, and there are technical problems arising with the use of switches and broadcast messages, so there are issues that these documents do not address. We will need to do something soon, I think, but the CPWG is very busy with other projects now.

ANSI E1.17-2006, ACN (CPWG)

The portions of the document created by Philip Nye are not searchable on most computers. The fonts he used are two-byte Unicode fonts, and most people's Acrobat applications use one-byte ASCII in the search field. He says he's found a solution, but I haven't seen the fruits of it yet.

Dan Antonuk says he has found some errors and is creating a list of errata. The working group wants to publish the list of errata as a prelude to revising the standard and perhaps as the sum of his public review materials for the revision project, but the list hasn't been presented to the working group yet.

ANSI E1.20-2006, Remote Device Management (CPWG)

Scott Blair has reported that a few problems have been found in the document, mainly with the examples in that the examples do not match the actual requirements. The consensus of the working group has been that a full list of errata should be developed. Work is being done on this, but I have not seen the errata list. Scott Blair has asked for the Word version of the published document, which makes me worry that he may have forgotten the idea of offering the list of errata as the public review materials and plans to jump directly to revising the standard. Publishing the errata as part of a public review is a better idea because it allows us to signal the problems to those who already have the standard before we have completed the entire revision process, and it allows us to conduct a public review without giving away the standard.

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#### **ACTIVE PROJECTS**

Fire Resistance Task Group

The three principal task group members are all in the New York area and have been meeting regularly to refine the problem and to break it down into specific issues. Attached is the "[A Need for Recommended Practices of Fire Resistance in Live Event Settings](#)," which is the document they are

developing to guide their work. Also attached is a [one-page report](#) from the task group to the TSC to explain what they have been doing.

BSR E1.4, manual rigging systems (RWG)

The Rigging Working Group wrote a response to Jim Read Jr.'s letter, as directed by the TSC, and modified the draft standard to address some of the concerns. The working group has voted to offer the draft standard for another public review. That motion has been forwarded to the TSC. As this is being written, the TSC letter ballot on the motion is still open. It closes at the end of the day on January 19.

ANSI E1.5-2003, glycol and glycerin fog exposure standard (FSWG)

The working group voted to reaffirm it, and, as a first step, to offer it for public review. The TSC approved the motion with a letter ballot (the last vote was received Friday), so, by the time the TSC meets in Ft. Worth, it will be in public review. This standard is currently posted on the ESTA website for a free download, so the public review will simply direct people to look at the existing standard.

BSR E1.6-1, powered winch hoist systems (RWG)

The last public review ran from 10 November 2006 through the end of the day UTC 25 December 2006. The task group is working on draft resolutions.

BSR E1.6-2, powered serially produced chain hoist systems (RWG)

The was is in public review through August 27 and garnered 11 comments. A draft comment resolution document, along with a revised draft standard, has been sent to the Rigging Working Group for action. The RWG can accept them as they are, and vote to offer the revised draft standard for public review, or the RWG can revise the documents, or ask for further revisions from the task group.

BSR E1.6-3, safe use of serial manufactured electric chain hoists in the entertainment industry (RWG)

The first draft is still being developed. It's been underway for less than a year, and the topic is fairly complex.

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

This project was created at the Summer 2007 RWG meeting. Peter Herrmann of Motion Labs is the task group leader. They have had their first meeting.

ANSI E1.11-2004, DMX512-A recommended practice (CPWG)

PLASA's proposal to have James Eade write this document ran into trouble at the July CPWG meeting. The working group felt that the document that Eade had started to write did not meet the needs of the average end-user. Instead, Adam Bennette will revise the existing recommended practice, which he originally wrote and which is held in high regard. A letter was sent from the CPWG chairs to James Eade thanking him for the work he had done on the document to that point.

BSR E1.11-20xx, DMX512-A revision (CPWG)

The revision process has started to correct errors in the document and to rework some confusing bits. I have proposed adding a means of sending messages in Unicode so that non-English messages can be supported. An Italian company has proposed expanding the protocol by adding "OpenDMX" to one of the Alternate START Codes. This ASC is registered to them now, since they are using it on their LED products. The OpenDMX proposal was rejected. My proposal was not warmly received, but not outright rejected. The Control Protocols Working Group has a revised E1.11 standard to consider at the January meeting. I think they could vote to offer it for public review, but they might decide to do something else.

Chinese standard based on ANSI E1.11-2004, a project of CETA

We have an agreement on the royalty payment—250 yuan payable within 60 days of publication. We also worked out the ASC and manufacturer ID registration problem. Any Chinese standard has to be administered by a Chinese organization, so we agreed on the compromise that ESTA will keep the database, but that CETA will be the clearing house for companies in the People's Republic of China. This was all agreed, but I don't know how the project has progressed since then. It needs approval from the Ministry of Culture for publication, and that could take a while. The Chinese government moves faster than the US government, but that does not mean it is fast.

BSR E1.12 camera crane standard (CCWG)

Work continues on this slowly, with infrequent meetings, however, the plan that came out of the last working group meeting seems reasonable to me. A professional writer was hired by one of the crane companies to write a manual, and she will be working with Kent Jorgensen on the draft standard. They are essentially the task group.

The group last met in early March 2007. Another meeting was scheduled for August, but called off because Kent Jorgensen needed to spend time with his family due to an emergency there. The working group recently met on January 9 in Burbank, but I have not seen the draft minutes yet.

BSR E1.18, Recommended practice for selection, installation, and use of portable feeder cable (EPWG)

The task group for the existing draft standard has not been following directions or producing in a timely manner, so Ken Vannice, one of the working group chairmen, took the last public review document, which was over 100 pages long, stripped out 60% of it to pare it down to essentials, and this document has been sent to the Electrical Power Working Group for consideration at its January meeting.

The problems are that (1) the E1.18 project has been behind schedule, and (2) we need the document. The last public review ended 28 August 2006, and ANSI requires some action within a year. The task group has been working on possible comment resolutions, but we are now five months late in responding to the comments and we still have no official response. The second problem is that the material in the standard needs to be published to support the ETCP's electrician certification program. The selection and use of single-conductor portable power feeder cable is a series of topics covered by the ETCP exam, but there is no book at this time that covers these topics. This standard does, but it can't be used as a reference or teaching text until it is published. The project has been on our books for over seven years, and has not yet completed one full revision cycle. Vannice's massive reworking of the standard is an attempt to get it done sooner rather than later.

BSR E1.19, Recommended practice for use of Class A GFCIs (EPWG)

It's public review ended July 30 and garnered 18 comments. The task group drafted a set of possible resolutions and a revised draft standard, and these have been sent to the Electrical Power Working Group for consideration.

BSR E1.22, fire safety curtain systems (RWG)

The last public review ran until the end of the day Monday, 12 March. A set of resolutions were approved by the Rigging Working Group at the November meeting. The group also voted to offer a revised version of the draft standard for another public review. That motion has been forwarded to the TSC. As this is being written, the TSC letter ballot on the motion is still open. It closes at the end of the day on January 19.

BSR E1.27-2, permanent DMX512 cabling (CPWG)

The document was in public review through November 19. It received 56 comments. Some of them were quite negative with strong arguments. Some of the recommendations in the draft standard are contrary to how the largest theatrical control system manufacturer in the US installs permanent cabling.

BSR E1.28, followspot position planning guidance document (FPWG)

The document is in public review through January 14. It has received a lot of comments from the theatre consultant community, few from anyone outside it. The early comments are simply objections to ESTA offering any advice about buildings, stating that we are out of our rightful domain, we should concern ourselves with equipment only. Other comments, the later ones, are much more helpful, and point out problems and offer suggestions. We can work with those to improve the document.

BSR E1.29, fog equipment product safety standard (FSWG)

The working group voted to offer the document for public review. The TSC approved the motion with a letter ballot (the last vote was received Friday), so, by the time the TSC meets in Ft. Worth, it will be in public review. The draft standard is a nine-page document that references UL 998 - 2006 and then adds or modifies specific requirements.

BSR E1.30, Application level equipment interoperability for control of commonly encountered entertainment technology devices using E1.17 (CPWG)

At the last Control Protocols Working Group meeting, Dan Antonuk said that the task group has several EPIs (the modules that make up this standard) that it would like to offer for public review. Javid Butler moved that these EPIs be offered for public review, and Philip Nye seconded the motion. Since this is a motion for first public review, the motion needs to be decided by letter ballot, but nothing has been done, no ballot has been issued, because I have not received any of the EPIs that are the subject of the motion. This is noted on the agenda for the next CPWG meeting.

BSR E1.31, Lightweight streaming protocol for transport of DMX512 using ACN (CPWG)

The most recent public review ended EOD, March 19. Eight people commented, and offered 115 comments. The working group needs to resolve those comments, but I do not have a draft comment resolution document yet to send to the working group.



BSR E1.32, luminaire maintenance guidance (EPWG)

It was in public review through July 30. It received a total of 51 comments from three people. Work is being done to resolve the comments and revise the draft standard.

BSR E1.33, RDM over ACN (CPWG)

Progress is slow, virtually non-existent. Effort has been focused on BSR E1.31.

BSR E1.34-200x, Entertainment Technology-Measuring and Specifying the Slipperiness of Floors Used in Live Performance Venues (FLWG)

The Floors Working Group will have a revised draft document for the next meeting. The gadget that they have settled on is a fairly simple drag sled. Nothing like it is on the market, but any scene shop could build it for a few hundred dollars in materials.

BSR E1.37, Additional Message Sets for ANSI E1.20, Remote Device Management (CPWG)

Work continues, but the same group that is working on this is working on BSR E1.31, so there is competition for resources.

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**OTHER THINGS OF NOTE**

Nothing at this time!

Respectfully submitted,



Karl G. Ruling  
Technical Standards Manager

**The Rigging Working Group submits this response to James L. Read's letter to the TSC. The response includes the text of Bill Sapsis's January 2007 letter to Read.**

As directed by the Technical Standards Committee at its January 2007 meeting, the Rigging Working Group has addressed in the attached draft standard the concerns raised in the letter from James L. Read to the Technical Standards Committee members, dated December 30, 2006. We understand that "standards matter" and that the standards writing process can generate strong emotions. Our intent in writing this document is to respond to the issues raised in the letter.

We appreciate ASTC taking the time to formally address concerns with BSR E1.4. Jim Read's letter of December 30, 2006 clearly identifies Bill Conner as the official representative and spokesman, and indicates that his vote and position represent the ASTC members. Any confusion surrounding ASTC official representation has been put to rest.

While we recognize the ASTC position that the standard can be used for both code and litigious purposes, neither is the stated intent of the standard. As per the stated intent (newly added into the normative part of the standard), "The purpose of this standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength and safety to life and property from hazards attributed to Manual Counterweight Rigging Systems." The document Foreword addresses the same concerns expressed in the ASTC letter – namely, that there is no American National Standard governing the design and manufacture of products for lifting and holding scenic elements, nor is there one which concerns actors and technicians involved in the theatrical and entertainment industry. The goal of this standard is to change that. We agree with ASTC's assessment that good practice by manufacturers and installers, good contract documents and inspections by consultants have all helped keep the number of accidents low. To that list, we include the training, education and certification of users.

ESTA's goal is to establish BSR E1.4 as an American National Standard. From the ANSI website: "While a standard is a technical expression of how to make a product safe, efficient, and compatible with others, a standard alone cannot guarantee performance. Conformity assessment, however, provides assurance to consumers by increasing consumer confidence when personnel, products, systems, processes or services are evaluated against the requirements of a voluntary standard." There are more than 10,000 American National Standards, written by over 200 ANSI Accredited standard developers. Certainly not all of these are referenced by codes, nor are all involved in litigation. We acknowledge that while both are possible with E1.4, we cannot predict the outcome or extent of either. However, both possibilities have been considered in the development of the standard in accordance with the intent of the standard (newly added to the scope), "to establish minimum requirements to safeguard the public health, safety and general welfare."

We recognize and appreciate the ASTC offer of assistance and input in the creation of standards, demonstrated by the appointment and strong endorsement of your representative, Bill Conner. Historically, not only has the E1.4 Task Group actively solicited the ASTC for participation, but the ASTC has also actively participated in the BSR E1.4 development, both through the ASTC representative and through the mechanism of ANSI approved public review procedures. In addition, we point out that the ESTA Technical Standard Program is a volunteer effort. Participation is open to all, and ESTA membership is not a requirement for participation. Each organization is limited to one voting representative, but ASTC members are also free to join under the banners of their individual companies. We encourage this participation.

We agree that introducing the document into the public domain removes it from ESTA control, and the document becomes free to use in any way, by anyone, familiar or unfamiliar, litigious or not. Again, we point out that we cannot predict the outcome. We disagree with the statement that the standard is not written clearly and point out that this particular standard has been in development for over 10 years, enduring over 1,400 public review comments and evolving over the course of 8 public reviews in which anyone is free to offer opinions. All Public Review Comments have been reviewed and addressed in strict accordance with ANSI protocol. Again, history proves that both ASTC and its individual members have

made use of public reviews in the past. The draft standard reflects its long history of development and the RWG's quest for consensus in creating the very best document possible.

ASTC has attached three appendices, referred to as A, B and C. In Appendix A, ASTC expresses 3 major areas of concern, definitions and technical accuracy, terminology, and procedures. Specific ASTC concerns with technical accuracy are, "included in part B of this appendix". In response, we have addressed these in a section devoted to Appendix B (below).

ASTC opines that the document as written would be acceptable if it were titled "A Model Specification for Manual Counterweight Rigging Systems" or a "Recommended Practice for Manual Counterweight Systems" if we are interested in renaming it. We cannot rename the document using either option, the first since what we are creating is a standard and not a specification, and the second because, again, we are creating a standard, not a "recommendation". Further, ANSI makes no distinction between the development of a standard or a recommended practice, although we acknowledge that a case for a legal distinction could be made. However, we do agree with and embrace the ASTC recommendation in Appendix B to add an intent statement to the document that incorporates the word "minimum" (see below). We appreciate the specifics of the issues with language as laid out in Appendix A and found all of them addressed again in Appendix B, with section and line referenced. We have addressed them by making almost all of the changes requested, and where a change was not made by providing explanation (see below).

Bill Sapsis, as chair of the ESTA Rigging Working Group, has written a response that we believe addresses all the procedural issues. Please find that letter attached.

Appendix B attached to the ASTC letter provides specific recommendation for changes, and we are more than happy to address these suggestions:

Add to scope: "Intent: The purpose of this standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength and safety to life and property from hazards attributed to Manual Counterweight Systems."

**Added.**

Add to Scope: "The provisions of this standard are not intended to prevent the installation of any material or to prohibit any design or method of fabrication not specifically prescribed by this standard, provided that such alternate material, design or method of fabrication is satisfactory and complies with the intent of the provisions of this standard, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this standard in quality strength and effectiveness."

**Added.**

Section 2: delete "usually wood or metal" from belaying pin definition.

**Deleted.**

Section 2: delete "Outrigger battens may also support locking rail worklights" from outrigger batten definition.

**Deleted.**

Section 2: delete "of similar mass" from the definition of single purchase.

**The phrase "of similar mass" is required in the definition of single purchase to clearly indicate that there is a one-to-one ratio between the mass of the objected being hoisted and the counterweight/force of the equipment employed to do the hoisting.**

Section 2: delete "may" from last line of definition of lift line.

**Deleted.**

Section 3.1.1.a: delete "in a secure and safe manner".

**Deleted.**

Section 3.1.4: delete “secure”.

**Deleted.**

Section 3.1.6.a: delete “properly”.

**Deleted.**

Section 3.1.7.a: delete “in a safe and secure manner”.

**Deleted.**

Section 3.3.1: delete “secure”.

**Deleted.**

Section 3.4.1.a: delete the word “proper”.

**Deleted.**

Section 3.6: delete “securely”.

**Deleted.**

Section 3.8.2: change “deemed acceptable” to “permitted”.

**Changed.**

Section 3.9.1.a: delete “safe” and “easy”.

**Deleted.**

Section 3.9.2a: delete “safely”.

**Deleted.**

Section 3.9.2.c: change “acceptable” to “permitted”.

**Changed.**

Section 3.12.1.c: delete “secure”.

**Deleted.**

Section 3.12.1.c: delete “hardwood”.

**Deleted.**

Section 3.17.3.3: change “acceptable” to “permitted”.

**Changed.**

Section 3.18.2.3: change “acceptable” to “permitted”.

**Changed.**

Section 3.18.2.4: delete “safely”.

**Deleted.**

Section 4: change reference to ANSI Z535.1-2006, ANSI Z535.2-2006, ANSI Z535.3-2006, ANSI Z535.4-2006.

**Changed.**

Section 4.5: change “building engineer” to “owner” or delete entire second sentence.

**Replace the entire second sentence with “A professional engineer shall approve the stated parameters, or the sign shall clearly state “CAPACITY UNKNOWN”.**

Figure 1: change fourth sentence “may” to “shall”. Change fifth sentence “may” to “shall be permitted to”. **Change the fourth sentence “may” to “are” in both instances. Change the fifth sentence as requested.**

We believe that these changes improve the standard and thank ASTC for making the suggestions. For future standards, we respectfully request that ASTC members take advantage of the public review process to make these recommendations, in keeping with the ANSI guidelines. In addition, we welcome and encourage individual members to participate in the Technical Standards Program at all levels.

ASTC has also attached letters from individual members in Appendix C that contain general and specific concerns that we would like to address.

The letter from Schuler Shook expresses concern that the draft standard is too prescriptive and that it will “have the effect of stifling innovation and limiting the creative solutions to problems.” We would like to point out that both the foreword and the normative portions of the draft standard contain language that addresses these very concerns. The foreword states “The standard represents equipment manufactured under the constraints of current technology. It is not intended to restrict further developments or enhancements.” The normative portion of the standard now states (as per add from appendix B, on the very first page, “The provisions of this standard are not intended to prevent the installation of any material or to prohibit any design or method of fabrication not specifically prescribed by this standard, provided that any such alternative material, design or method of fabrication is satisfactory and complies with the intent of the provisions of this standard, and that the material, method or work offered is, for the purposes intended, at least the equivalent of that prescribed in this standard in quality, strength and effectiveness.”

The letter from George D. Izenour Associates brings up three concerns: the use of decimal dimensions without a prefix zero, the requirement that the outrigger batten run the full length of the locking rail and the lack of input from outside the industry.

**The leading zero was added to the numeric value as requested. The word “shall” was replaced with the word “should” in the last sentence of section 3.14.**

As previously stated, all ESTA standards are developed using ANSI-approved procedures. Public review is a step in such a process, wherein anyone is permitted to submit comments for resolution using the ANSI procedure. In the case of E1.4, to-date this has included 8 completed public reviews over the course of more than 10 years. There was adequate time and solicitation for outside views.

The letter from Theatre Consultants Collaborative does not give a specific reason for their rejection of the document, so we cannot respond.

The Auerbach Pollock and Friedlander letter contains four major concerns: the use of “legalistic” language without knowledge of case law, the mixed use of “sheave and pulley,” allowing the use of less than grade 80 or alloy chain for overhead lifting, and an imprecise document that leaves both ESTA and the industry open to legal exposure. The general example of case law stated in the letter is one of the definitions of competent person, but does not elaborate on the problem or on any specific case law. The definition of competent person that ESTA has employed in all the TSP documents is derived from the OSHA definition of competent person, and is as accepted by the Rigging Working Group.

In the definition for “reeve”, the word “pulley” has been replaced with the word “block”, in both instances and forms.

In order to resolve the apparent contradiction with the NACM chain standard, we have revised the requirements for the trim chain assembly in 3.17.3.3 (c). The letter correctly points out that if there is a failure and a lawsuit, the party that specified the non-rated load chain will be a "target." Unfortunately, every party involved is a potential "target" and further, it is impossible to predict an outcome of litigation that leaves any named party free and clear of any culpability. The letter also asserts that the issuing of the standard will create legal exposure for both ESTA and the industry. We respectfully submit that this exposure inherently exists. ESTA's legal counsel has evaluated the potential extent of this exposure. Once again, the intent of the standard is to establish minimum requirements to safeguard the public.

The letter from CDAI references three concerns: terminology not in agreement with legally accepted meanings used in the architectural and construction industry; the dictation to design, engineering, and authorities having jurisdiction for means, methods, and employment of theatrical equipment; and the lack of contributions by consulting, design, and engineering professionals. No specific references are given for terminology problems, so no response is possible. This appears to be similar to the arguments presented by Schuler Shook, namely – the document is too prescriptive. However, both the foreword and the normative portions of the draft standard contain language addressing these very concerns. The foreword states "The standard represents equipment manufactured under the constraints of current technology. It is not intended to restrict further developments or enhancements." The normative portion of the standard, on the very first page, states, "The provisions of this standard are not intended to prevent the installation of any material or to prohibit any design or method of fabrication not specifically prescribed by this standard, provided that any such alternative material, design or method of fabrication is satisfactory and complies with the intent of the provisions of this standard, and that the material, method or work offered is, for the purposes intended, at least the equivalent of that prescribed in this standard in quality, strength and effectiveness." In addition, the standard is voluntary by definition. In terms of contributions from consulting design and engineering professionals, the Rigging Working Group membership is comprised of individuals employed as consultants, engineers, and designers, as well as manufacturers. The public review process encourages anyone – regardless of profession - to be involved in the process, so long as they are materially affected by the nature and scope of the document(s) being reviewed.

The email from Jones and Phillips also expresses concern with the perceived prescriptive nature and takes specific exception to Section 5 Inspection Procedures, yet makes no specific recommendations for changes or gives examples of why the way it is written could be interpreted as overly prescriptive. While we have difficulty entertaining or rejecting changes without specific suggestions or recommendations, section 5 has been reorganized to clarify the inspection requirements.

On a final note, we emphasize the final paragraph of the BSR E1.4 foreword: "*This standard represents equipment manufactured under the constraints of current technology. It is not intended to restrict further developments or enhancements. Revisions of this standard will be considered by the committee in light of further advances in technology, changes in entertainment requirements and operating practices. Future revisions will not imply that previous editions of the standard were inadequate. Nor is it the intention of this standard to suggest that equipment manufactured before the creation of this standard is inherently inadequate.*"

We look forward to ASTC providing their collective and individual experience to help create standards that serve the entertainment industry, through the public review process, as part of ESTA's Technical Standards Program.



January 8, 2006

James L. Read, Jr  
ASTC  
12226 Mentz Hill Road  
St. Louis, MO.  
63128

Dear Jim:

Thank you for your letter of December 30, 2006. I understand your concerns and very much appreciate it that you took the time to put them down so clearly. I also want to thank you for clarifying the role that Bill Conner has within both organizations.

I am writing to you to address the procedural concerns as they were outlined in the Appendix of your letter.

The role that Karl Ruling, the ESTA Technical Standards Manager, plays during the Standards meetings is one of secretary and parliamentarian. It is his job to make sure the minutes of the meeting are accurate and that we do not break the rules. The TSC is, after all, an ANSI accredited standards writing body and subject to the rules that ANSI proscribes. ANSI also audits us on a regular basis.

Karl does not run the Rigging Working Group (RWG) meetings. I do. Karl has no say or vote on any action taken by the RWG membership. All public review comments are addressed by the Task Group of that particular draft standard and then brought to the Working Group. It is then the Working Group that votes to accept or not accept the responses. Karl had nothing to do with the "out-of-hand rejection of valid comments" referred to in the Appendix.

With regard to Task Group meetings, please understand that this is a volunteer organization and, as such, we do not have the personnel to police our membership at all times. Task group meetings are supposed to be announced to the TSC and RWG chair and, in fact, most of them are. The main purpose of these notifications is to insure that there is a meeting room available for the Task Group when they need it. Obviously, the TSP cannot afford to simply rent out the entire complement of meeting rooms in the hotel on the off chance that someone might want to use them. All meetings that have been identified to us by Task Group leaders are announced in the ESTA newsletter Standards Watch and on the TSP website <http://esta.org/tsp/meetings/index.php>

And finally, the actions ascribed to Karl regarding the documents presented at the meeting are, at best, inaccurate. The TSP Policies and Procedures clearly identify a two-week rule for the submission of all documents for consideration at the next meeting. This rule has been in effect for as long as I've been a member (over 10 years) and is well known to all. It exists to insure that all members of the Working Group have had adequate time to familiarize themselves with the document(s) in question and to help keep the meeting from running too far over it's allotted time. The RWG has over thirty-five members and is probably the most well attended meeting in the TSP. I'm sure you can understand

what would happen if everyone attending the meeting brought with them a new document or two for review by the entire group.

That being said, if there are no objections from the members attending the meeting, the documents might be considered. In this case, a member did object, and his objection forced acting on any motions made relative to the documents to be done by letter ballot or to be tabled until the January meeting. At that point, discussion of the documents ended. I think it important to remember that Karl, as previously noted, had no say in this matter. The membership, acting within the rules proscribed to these meetings, made the decision.

I hope that this information helps clear up some of the misconceptions regarding our procedures. If you ever have any questions or comments that you would like to discuss with me, please do not hesitate to call.

Thank you once again for taking the time out of your very busy schedule to write to me.

Sincerely,

Bill Sapsis

Member, Technical Standards Committee  
Member, ETCP Council  
Chairman, Rigging Working Group

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### **Report on SAE S10G High Intensity Light Sub-Committee Meeting**

The High Intensity Light Sub-Committee met at Brooks-City Base in Sa Antonio, Texas from January 8 thru January 10, 2008.

The purpose of the meeting was to review the test data and complete the draft document.

#### Agenda Items:

Meeting will be held at AFRL/HED, Brooks City-Base, TX. Dr. Leon McLin is the local point-of-contact for this meeting, and he can be reached at 210/536-4816 or [leon.mclin@brooks.af.mil](mailto:leon.mclin@brooks.af.mil).

Introduce meeting attendees.

Review the attendees listing – check for correctness of spelling and personal information.

HIL Measurements performed at Sky-view (Terry Lyon)

HIL observation flight (Steve Rohring & Van Nakagawara)

Revise the SAE ARP (High-Intensity Lights Projected in the Navigable Airspace)

The draft document was completed. (See attached)

The document will be put in the format required by the SAE and editorial corrections made by Van Nakagawara and the document will receive a final review by the committee. It will then be submitted to the SAE for approval and publishing.

After being published by the SAE, the Medical Section of the FAA will review it and if approved by them it will be forwarded to Air Traffic control to be used to revise their procedures if they desire. Since both the Medical and Air Traffic Control groups were represented on the committee approval by the Medical Section and use by Air Traffic Control is expected. This entire process is expected to take approximately one year.

It is still called a draft document since formatting, editing and acceptance by the SAE are still required. No technical changes are expected to be needed. If technical changes are requested by the SAE the document will be returned to the sub-committee to review any requested changes.

Jerry Gorrell