



## Rigging Working Group

### E1.43, Performer Flying Systems Public Review 3 Comment Resolutions

**Reference document:** E1.43, *Performer Flying Systems* (Document number Rig/2020-2032r2)

**ANSI Public review period:** 02 August 2024 through 15 September 2024

**Question:** This is a limited review of revisions to section 6.1.6 (**delineated in red text**). In your opinion, do you think the requirements of , (Document number ), section 6.1.6 are reasonable, and adequately address the intended subject matter? Comments on other sections will be received, but will not be considered until the document's next revision.

Please answer the question using one of the options below. Select "Yes", "Yes, but..." (provide comments to support your opinion), or "No, with reasons" (the document's requirements are unacceptable or unreasonable). Note that you are offering your opinion, which is in no way construed as a vote of acceptance or approval.

#### Responses:

Stephen Koepfer – Breakfall Studios (SK)	No, with reasons
Robert Brown – I am WATER Stunts (RB)	No, with reasons
Wade Cordts – Aero Stunts LLC	No, with reasons
Dawn Copeland (DC)*	No, with reasons

\*Comments received after the public review comment deadline, included here for information only, and may be considered at the working group's discretion.

#### Individual Comments:

No.	Commenter	Comment	Resolution
1	SK	<p>Regarding Section 6.1.6 of the general Guidelines</p> <p>I cannot agree to language stating, "the flying system designer shall take full responsibility for such use." Just as safety is a collective endeavor, so is sharing liability when things do not function as planned. No single member of a production should be assigned "full responsibility" – not the employer, not the rigger, not the designer, not the performer, nobody. These systems are as much a living organism and the person being flown. Having said that, I do not think key stunt riggers, stunt coordinators or any crew member designing or participating in performer flying should be absolved of responsibility. Language in any standard endeavoring to build a culture of safety must address shared responsibility and liability by all involved.</p> <p>Anyone designing performer flying systems must function under safety standards at least</p>	<p>Accept in principle. Clause has been revised as follows:</p> <p><b>6.1.6 The flying system designer shall determine the appropriate selection and function of all equipment used to attach to, or as part of, the Performer Flying System.</b></p> <p>Comments: The intent of the Standard, and of this provision, is to indicate the roles, responsibilities, and minimum acceptable practices applicable to the</p>

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		<p>equal to similar industries. So, to this point, I support this portion of section 6.1.6 regarding documented risk assessments: “In such cases, documentation of the rationale for such use based on RA/RR shall be included in system documentation.”</p> <p>It is true that performer flying systems often use equipment in ways not specified by the manufacturers scope of use. This is a known fact and is ‘standard’ in the industry. There are very few manufacturers that specify in this niche area of rigging expertise. Inasmuch, the fantastic feats we have seen on stage and film for decades have been born from the creativity of qualified system designers, riggers and stunt professionals. Until the manufacturing industry catches up to the needs of our industry, we are left with little choice.</p> <p>It is my opinion that anyone designing performer flying systems (or their qualified designee) must complete and document risk assessments, clearly communicate their design, and how it will mitigate assessed risk. The process of documenting this on paper is in of itself an additional safety assessment. It is the system designer’s job to assess risk, document how they plan to mitigate that risk and clearly communicate that plan. It is for their own protection as much as anyone else’s. Furthermore, I would note that risk assessments must include rescue plans, planning for failure, and a requirement of after action debriefs – even in the event of successful gags.</p>	<p>discipline of Performer Flying. It does not and cannot assign liability or address the relationships and distinctions between employers and employees. The role of Flying System Designer is defined as a Qualified Person or persons responsible for design functions, including the appropriate selection equipment and components and associated RA/RR, whether or not intended by manufacturers for use in flying people. The language of this clause has been edited to better express that intent and clarify the fact that the clause pertains specifically to design functions. For the references to RA/RR, Section 5 of the standard already states that RA/RR shall be performed for all aspects.... “and shall continue cyclically for the duration of the systems use.” Clause 5.1.2.6 states that RA/RR process shall document the process of identification, evaluation, mitigation, and classification or risks and hazards. To eliminate redundancy with Section 5, references to RA/RR were removed from the language of 6.1.6.</p>
2	RB	<p>As a Flying System Designer there is rigging equipment at times used in our industry that states the equipment is not intended for flying performers as part of a performer flying system even though the equipment's intended purpose, weight, and strength parameters are well within our 10:1 stunt ratio industry standards. Manufacturers are placing these restrictions on equipment for liability reasons due to unprofessional and uneducated use. I do not believe it to be fair to pass on that responsibility / liability to the Flying System Designer (Employee). If a flying system fails due to a manufacturing flaw in a product that is within our stunt industry standards and someone is injured as a result that liability should fall on the Employer and not the Flying System Designer (Employee). Producers, Stunt Coordinators, and Live Performances should be hiring industry proven Flying System Designers for their shows, projects, and productions.</p>	<p>Accept in principle. Clause has been revised as follows:</p> <p><a href="#">6.1.6 The flying system designer shall determine the appropriate selection and function of all equipment used to attach to, or as part of, the Performer Flying System.</a></p> <p>Comments: See Response No. 1.</p>
3	WC	<p>Whereas: The status quo is that the EMPLOYER is responsible for the use of tools and equipment in the workplace.</p> <p>Whereas: The stance of the labor unions representing the motion picture entertainment industry is that the EMPLOYER us the responsible party for providing workplace training,</p>	<p>Accept in principle. Clause has been revised as follows:</p> <p><a href="#">6.1.6 The flying system designer shall determine the appropriate selection and</a></p>

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		<p>guidelines, and enforcing workplace standards.</p> <p>Whereas: The existing proposed changes to section 6.1.6 of the standard would create a direct conflict with the stance of the labor unions I.A.T.S.E. and S.A.G.-A.F.T.R.A. and their existing historical precedants surrounding employee protections.</p> <p>Whereas: Many employers mandate the use of equipment in their systems through corporate policies, use of existing assets prior to system designer hire date, or mandatory purchase agreements which are deemed by manufacturers not to be used for performer flying.</p> <p>Whereas: The existing proposed changes to section 6.1.6 of the standard may make individual employees more vulnerable to being the target of lawsuits that are the result of poor employer policies governing employee practices.</p> <p>Whereas: When flying performers in the motion picture industry, it is common employer practice for rigging changes to happen in the moments between recording takes, with employers allowing no time for documentation of RA/RR, and instead rely on the past experience and training of the employee to do a mental RA/RR. This speed and flexibility is essential to the successful execution of the job tasks. Employees who do not operate in this manner are often fired.</p> <p>I propose that the proposed changes to section 6.1.6 be amended to replace the second instance of the term “system designer” with the term “employer”. Furthermore, I propose that the text “documentation of the rationale for such use based on RA/RR shall be included in system documentation.” be changed to “an RA/RR shall be performed.”.</p> <p>The full text of the new section I propose would read as follows and therefore be it</p> <p>Resolved,</p> <p>6.1.6 If the flying system designer determines that it is appropriate to use or attach to rigging equipment or other components not intended for flying people as part of the performer flying system, the employer shall take full responsibility for such use. In such cases, an RA/RR shall be performed.</p>	<p>function of all equipment used to attach to, or as part of, the Performer Flying System.</p> <p>Comments: See Response No. 1.</p>
4	DC*	<p><i>It is important to note that the Rigging System Designer may require equipment and/ or components to perform in such a manner that fail to be represented in pre-existing items intended for flying people. When such occurs, the Rigging Designer may seek a viable alternative in good faith. When such occurs, parameters and support needs to be provided for doing such. Performances involving aerial performers are creative performances and as choreography becomes more intricate, challenging or pushes boundaries, appropriately designing a Rigging System to accommodate such will also become more challenging, hence the potential need for viable alternatives and solutions to safely ensure the realisation of the designed and choreographed performance. Alternate language is</i></p>	<p>Reject. Clause has been revised as follows:</p> <p>6.1.6 The flying system designer shall determine the appropriate selection and function of all equipment used to attach to, or as part of, the Performer Flying System.</p>

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		<p><i>included in support of such.</i></p> <p>Attachment to Dawn Copeland's PR form:</p> <p><i>When designing a Rigging System, there may be an occasion when a component, needed to perform a specific function, is non-existent or equipment, hardware and components, specifically designed, designated and approved for Rigging use, lack the sufficient characteristics, functionality and/or properties required by the venue/area/ environment in which the rig will be used and/or are required by the performance involved, the application of the Rigging System. In such instances, an effort is made to acquire an appropriate option(s) or alternative. Trades, requiring similarly regulated standards and testing are, oftentimes, consulted, e.g. automotive, forestry, aboriculture, shipping, industrial hauling and freight, rescue and evacuation work, climbing, mountaineering, caving, spéléologie, construction, demolition, sailing and navigation, aerospace, military et more. Components, equipment and hardware, used by such trades, is frequently regulated, standardised, tested and accordingly stamped, as well as accompanied by informational tags and/or safety data sheets. An effort is made, in good faith, to remedy the missing elements within the design with appropriate, safe and functionally relevant components, equipment, materials and/or hardware. Calculations and testing performed. An engineer consulted, preferably. When these substitutes are found to perform and function well, safely and consistently, rigging designers may come to rely upon them for performing that purpose.</i></p> <p><i>In designing a rigging system in which an aerial artist(s) / performer(s) will be flown and/or suspended, and vital, requisite equipment and/or components, essential for the safe and secure facilitation of such, lack(s) design and/or manufacturing specificity, standardisation and/or certification for aerial application, then experimentation must be done to ensure that the rigging system will safely support the intended performer(s) to be flown and/or suspended, in the manner(s) which the performance or production dictates, free from any intrinsic system failures and/or have an engineer inspect the blueprints and complete rigging system designed.</i></p> <p><i>Sub- clause/ E1.43, 6.1.6.A</i>  <i>Components, equipment and hardware selected for aerial flying/dynamically suspended performer(s) use, within the rigging system, not specifically designed or manufactured for such, must be "rated" so as to sufficiently and safely support the forces, especially the dynamic forces, imposed upon the rigging system in a safe, stable and consistent manner.</i></p> <p><i>Sub- clause/ E1.43, 6.1.6.B</i>  <i>Components, equipment and hardware found to be consistently effective, safe and efficient, that have been engineer-approved, per specific application, should be noted, catalogued and submitted to the Rigging Working Group for référence. Items consistently and prevelantly found suitable, for aerial rigging application could be requested to have the additional designation be included in its purpose, as long as</i></p>	<p>Comments: See Response No. 1.</p> <p>Added Comments:</p> <p>The revised clause addresses the realities of the performer flying industry to utilize components from other industries that were developed without consideration of use for performer flying but are deemed suitable by a qualified person, the Flying System Designer. This person may elect to engage a design professional if deemed appropriate.</p> <p>The Commenter's proposed subclause 6.1.6B places the onus on the ESTA Rigging Working Group as an approval authority, which is not a function it can undertake.</p>

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		<i>use occurs within certain parameters and conditions.</i>	