

## SAFETY AND SECURITY MANAGEMENT AT SPORTING EVENTS: PERCEPTIONS, FAN EXPERIENCE, AND TECHNOLOGY

Jong-Chae Kim\*

J. P. Walsh\*

Chan Min Park\*\*

### ABSTRACT

Sport events have been impacted by the horrific events of 9/11 and they have been increasingly considered as a likely terrorist target. Sport event providers, thus, have to implement heightened security preparation and safety management. South Korea is going to host several large scale sporting events in the near future. The South Korean government has an overbearing duty to provide a safe and secure environment to all stakeholders involved. However, there is still a controversy about invasions of individual privacy because heightened security activities (i.e., bag search, pat-down search, body scanner) may not be fan friendly. In this study, the authors examined and found current issues regarding with safety and security management at sporting events. For example, the 22 professionals who are associated with collegiate sport safety operation answered that 100% of them do bag checks at gates, 27% had bag size requirements, and 14% used bomb sniffing dogs as a result of 9/11. Interestingly, 9% said that they no longer use volunteers at entrance gates due to heightened measure concerns. Under a consideration of more rigorous and intelligent systems, new technology (e.g., face recognition, unmanned aerial surveillance systems) needs to be appropriately utilized at mega sporting events. Additionally, sport facility and event managers should protect spectator privacy with using invasive monitoring technologies.

**Key words:** safety and security management, mega sport events, balancing security and fan experience, privacy invasion

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\* Fairleigh Dickinson University

\*\* Nanyang Technological University

## Introduction

The horrific events of September 11th, 2001 (i.e., 9/11) impacted everyone throughout the world, whether they realize it or not. The changes in airport security and the measures that have been put into place in terms of screening passengers are one of the most obvious processes that the average world citizens experience on a regular basis. Due to the nature of the event almost thirteen years ago, most travelers have come to understand the need for increased security procedures and every country has had to think about terrorism and adapt to unique security challenges.

Large scale sporting events are one of the biggest sectors affected by the 9/11 attacks. Since that fateful day, events at stadiums and arenas have been considered possible targets for further terrorist attacks. Consequently, event providers have implemented heightened security preparation and management for sporting events. Even though event organizers have paid greater attention to security issues in the decade plus since 9/11, we have unfortunately experienced another recent terrorist attack during the 2013 Boston Marathon event. The 2013 Boston Marathon bombing reinforced the belief that sports are a potential target of terrorism and minimized any complacency regarding safety and security on the part of the sports event managers. The topic of security has again been propelled to the forefront, especially in the sport event context. For example, the South Korea government, in particular, is facing with hosting several large scale sporting events, including the 2014 Summer Asian Games, 2018 Winter Olympic Games, and some recurring international sporting events. As the host country, the South Korea government has a great responsibility to provide a safe and secure environment to all stakeholders involved in these sport events including prospective athletes, spectators, and travelers. However, the heightened security and crowd surveillance management activities seem a double-edged weapon; its protection also compromising the scope of privacy for spectators. The balance between invasions of individual privacy and the greater good becomes a center of controversy. Only limited studies have been executed to identify the importance of fan protection versus individual spectators' privacy rights.

Thus, this study examines recently emerging issues regarding safety and security management at sporting events. It will contribute further to preparation for future safety and security planning in sporting events based on the insights mentioned here. The first part of this article explores spectators' risk perception issues on large scale sport events. The second part

further considers the balance between security and the spectator experience in the context of modern developments in risk management. The third part introduces emerging new security technology associated with sport events. Lastly, conclusion provides a summary and recommendations for sport venue managers regarding ways to implement risk management activities that can improve crowd safety and minimize the invasion of individual privacy.

### **Part I: Risk Perception and Sport Events**

Numerous studies (Cho, 2003; Hall, Cieslak, Marciani, Cooper, & McGee, 2010; Lee, 2003) on sport event management have indicated that security is one of the core dimensions of a sport event that has gained increased attention in recent years. The globalization of sport events has meant that these contests can often act as target for terrorism. In the context of spectator perceptions of safety practices, spectators may predict that sports events such as professional football can be targets of terrorist-related assault (Hall et al., 2010). Some recent studies (Giulianotti & Klauser, 2010; Konstantaki & Wickens, 2010; Markwell & Tomsen, 2010) have also provided strong empirical support that the perceived threats of terror have hindered fans from attending sport events.

#### Literature Review

Giulianotti and Klauser (2010) examined a study regarding security management procedures at mega-sporting events. In the context of the study, the authors discussed the three emerging safety issues (i.e., geographical location of a hosting city, event-specific risks and strategies, and sport mega event legacy), and concerns in regard to sport mega-events. In South Africa, for example, intensive racial discrimination, notorious urban criminal conducts such as rape, murder, and robbery, and medical issues like high rate of positive Human Immunodeficiency virus (HIV) could be considered as socio-geographical issues beyond predicted manmade threats. Interestingly, ticketless fans around the event facility in a (semi)final day centered as a new type of security issue in recent. Additionally, Vicente Bencie and Jacobsberg (2013) examined the security strategies outlined by the Brazilian authorities of the 2014 World Cup. The strategies are based on "the risk management conducted under the parameters of the local intelligence agency (ABIN), which listed the following criteria: Organized crime, Civil disturbance/violent fans-hooliganism (local and foreign), sexual abuse, sex traffic/tourism, child sexual abuse, border crimes, natural disasters, terrorism and extremist

organizations" (p.58). Based on their study, Federation Internationale de Football Association (FIFA) has also recently launched their new security regulations for the area of private security at the games. Similarly, Hall, Marciani, Phillips and Cunningham (2009) investigated spectators' perceptions of security at a National Association for Stock Car Auto Racing (NASCAR) event. In their findings, of the 1,642 spectators participating in the study, 52% mentioned when they decided to attend the sport event they were not concerned with security issues. 47%, additionally, had knowledge regarding emergency care place and procedures while attending events, and 47% felt procedures and signs for potential emergency evacuations were clearly presented and easy to follow in the event facility. Consequently, 64% indicated an opinion that professional sporting events are a likely target of terrorist attacks. It supports the previous studies' findings that sport event spectators might consider the threats of terrorism as an inherent risk of hosting sport events. Markwell and Tomsen's study (2010) also reports on the results of an Internet-based questionnaire survey that sought information concerning gay and lesbian participants' perceptions and experiences of hostility, threats, and violence on the basis of their sexual identity before, during, and after these events. Event organizers and public officials involved in planning and management emphasize the order and goodwill of these occasions. Nevertheless, participants from these sexual minorities feel notably unsafe or threatened in relation to significant aspects of attendance at large-scale night-time events with wide heterosexual participation. This may prove to be an important factor in the long term viability of these events. Interestingly, the study of Konstantaki and Wickens (2010), in contrast to previous literature focused on spectators' perceptions, intended to investigate the host city residents' perceptions toward security issues at the 2012 London Olympic Games. Findings from the study suggest that with regards to security and safety, the residents were concerned that the increased security risks during the Games could negatively affect attendance at the Games. Overall, the residents showed a lack of confidence that appropriate levels of security would be ensured at the Games.

## Part II: Balancing Security and Spectator Experience

In the management perspectives of sport events, spectators' satisfaction is a principle issue that influences their support and revisit intention which plays a role as a revenue source. Given the threat of terrorism to large scale sport events and venues worldwide, a heightened challenge is keeping a balance between the optimal security management practices and the fan experience. A

dilemma that is confronted by most of sport and event organizations is that those responsible for safety and security need to create a highly efficient and effective security management system that does not become excessively obtrusive. At all sport events, sport fans experience unique sets of circumstances and outcomes: unpredictable weather, number of spectators, and fan demographics make every event different from event to event. Some groups of fans can experience severe mood swings. These highly emotional crowds may be challenging for security management because of their sheer numbers and their ability to inflict damage to property and to rival fans throughout the course of the sport contests. This is especially true at nationalistic events like the World Cup.

Numerous studies (Madensen & Eck, 2008; Wann, Melnick, Russell, & Pease, 2001) have examined the characteristics of fan violence in sport events (i.e., crowd demographics, event significance, and performance quality). Not surprisingly, there is considerable evidence that males are more likely to be involved in violent acts (Madensen & Eck, 2008). In light of fan commitment level, highly devoted fans and visiting supporters are more likely to exhibit violent behavior. Meanwhile, spectator aggression is closely connected with the importance of event at hand. Spectators expect the best performances by their teams in certain events such as a divisional Major League Baseball game with a fierce rival or a championship match to decide a football season's ultimate victor. Therefore, unexpected poor performance by team may lead spectators to react violently through their actions or words. According to Madensen and Eck (2008), unstable athletes' performances behavior has been influential with regard to spectators' behavioral violence. That is, unsatisfied fans about their favorite team performance easily express their dissatisfaction with anger and aggressive behavior. In addition, violent and disorderly incidents in sport have often occurred where alcohol consumption is unrestricted or too liberal. Spectator violence occurs more easily during 'pre'-and 'post'-event activities because spectators generally consume alcohol during these time periods.

Furthermore, unexpected and unintended physical contact with other spectators resulting from congestion of spectators around ticket purchase gates, entries and exits, and tailgating environments can be causes for fan violence. While violence in sport is not new, each sport event poses different threats. Therefore, security management personnel should review previous challenges and update training and educational programs for a variety of possible incidents.

Cooperation and communication between event marketing and operation departments are a prerequisite for effective safety and security planning. For example, a team's marketing department is focused on ticketing, advertising, concession sales, media coverage. Stadium/arena operation departments may need to restrict some marketing activities due to safety and security concerns (i.e., ban on alcohol sales after a certain point in a contest, strict attendee bag and body searches, limitation of place and size of signage). Pre-game and halftime shows may lead to conflicts if a marketing department plans to perform a special event with parachutists for an advertising promotion. The security staff may need to restrict the flight paths near their facility due to chemical or biological terrorism fears, making such an event impossible. Sometimes the precautions taken by operations groups are frustrating to fans, delaying entry into facilities due to bag search. The marketing and operations groups should communicate and work in concert to ensure that their fans are enjoying their experience, but that they are also safe.

As previously mentioned, event customers' (i.e., mega event tourists) desire to attend a sport event is influenced by their perception of an event's ability to provide a stable and secure environment (Crotts, 2003; Echtner & Ritchie, 1991; Sonmez & Graefe, 1998). By optimizing facility security, teams and their leagues will ensure that fans will continue to come out to ball park and enjoy watching their teams. However, heightened security activities (i.e., bag search, pat-down search, body scanner) may not be fan friendly. For example, some fans reject a body contact and search from security patrols or feel uncomfortable with producing graphic body image after scanning their body. Importantly, unreasonable suspicion and search can lead to legal conflicts such as invasion of privacy (In the United States, 4th Amendment, Constitutional protection). All spectators entering sport venues are subject to video surveillance with face-recognition scanning. The scanned face images are screened against a database of existing criminals for the purpose of identifying potential terrorists. Immediately after the terrorist attacks of September 11, 2001, most Americans became supportive of using such technology in public places to scan for terrorists (Balint, 2003). New multi-dimensional graphic scanning technology enhances the accuracy of facial recondition search. Even though search and surveillance technology continue to be developed, threats of terrorists have not diminished. Consequently, this magnified security has had as its price steady erosion in the scope of individual privacy (Claussen, 2006). In particular, physical searches of persons for weapons, high technology surveillance, and information gathering technology are central issues regarding private intrusion

and potential Constitutional violations.

### **Part III: Integrating Technology and Practice**

The specific question addressed in this section what kinds of technological devices are being used in terms of mass searches of spectators at sport events. Many sport venues regularly conduct visual searches of bags and wand searches of spectators. A bag search area is commonly operated by individual security stewards with the police in support. Generally, event providers identify and make a list of prohibited items. The scope of allowance is very differing. For example, 2010 FIFA event organization did not utilize magnetometers to search bags for the general admission level. They were however used in the VIP areas. This decision was made to insure quicker entry into the events for fans. Some sport facilities have implemented more intrusive pat-down searches and video surveillance scanning. Pat-down searches are one of the more common methods used by security personnel. Using this method, security guards may pat and rub a spectator's body and pockets without direct skin-to-skin contact. Anyone who refuses to be searched may be denied entrance. The first pat-down searches at a sport event were implemented at the 2002 National Football League (NFL) Super Bowl event. In 2005, the NFL expanded its pat-down search policy to include all games.

Importantly, the authors of the current study found that security management research targeting collegiate sport events experiences less focus compared to different levels of sports event such as professional sport and mega-sport events. However, as Hall (2006) addressed, the National Collegiate Athletic Association (NCAA) has already announced "a best (security) practices planning options guide for institutions to review" and showed their serious interest on this area. Based on the main issues the authors mentioned above, the following question was addressed: What procedural and training measures are collegiate sport organizations taking to prevent catastrophic damage to facilities and injury to patrons who enter their arenas and/or stadiums? With twenty two collegiate facility managers responding to e-mailed surveys, 100% specifically mentioned bag checks at gates, 27% specifically mentioned bag size requirements for entry into facility, 14% specifically the use of bomb sniffing dogs as a result of 9/11, 9% specifically mentioned new camera technology, 9% mentioned that fans are not allowed to bring in any bags whatsoever, 9% specifically mentioned game day perimeters around the stadium/arena, and 9% specifically mentioned pre-game staff meeting with campus police.

Moreover, 59% of the venues partner with a third party for security, 18% specifically indicated that they employ metal detectors, and 9% mentioned that they no longer use volunteers at entrance gates due to heightened measure concerns.

Fan safety and security is a venue operator's highest priority. Under consideration of more rigorous and intelligent systems, another new technology, face recognition, is utilized. Venue operators may believe that these most advanced technologies reduce the likelihood of vandalism and violence. Not surprisingly, this innovative face recognition system at all access control points including main entrance plays a role to conduct surveillance and regulate a flow of crowds. Most advanced technology in sport events is unmanned aerial surveillance. Currently, deployment of unmanned aerial surveillance (i.e., Drone) at sport events is the first step. Some researchers addressed the following question: How should we balance protecting spectator privacy with using invasive monitoring technologies for event security? In North America and Europe, unmanned aerial systems for surveillance and monitoring spectators at sport events are not allowed. However, it will be effective for sport event at open places such as marathon events.

To date, 13 States in America have enacted drone-related statues. Florida Statue specifies that "No mass suspicion less searches by law enforcement unless high risk of terrorist attack, search warrant, and reasonable suspicion of imminent danger to life or serious property damage or escape of suspect or destruction of evidence." Additional 30 States have proposed certain types of State Statues Drone related. Further substantial variation issues (i.e., acquisition permission, permitted uses, usage reporting requests, privacy protection procedures) still remain. Security operation ought to mention a certain written consent form to event spectators when they apply unmanned aircraft system for their venue security.

## Conclusion

Sport event and facility managers continue to try and keep up with possible terrors or attack as attendance at major sport events is on the gradual decline. With the advancement of high definition televisions and their accompanying high surround sound systems, the appeal of attending sporting events in person can be diminished. However, sport event organizers still spend thousands of dollars in expenses to provide spectators and participants a safe and enjoyable game environment that is with no fear of violent acts from inebriated fans or terrorists. As part of security-related managerial preparation at sporting games, invasive monitoring



technologies and heightened security activities are seriously adopted where necessary. At the same time, sport event organizers should have a good consideration on the spectators' privacy invasion issue. The authors would suggest that event organizers always need to balance protecting spectators' privacy with using those monitoring technologies and security activities.

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