Journal of Crowd Safety and Security Management

JCSSM

An online journal

Notes for Contributors

- Practitioners' work based projects should be emailed as
  Word attachments to the Journal's Editors where they will
  be summarised and edited.

- Articles for a double blind review should be emailed to the
  Journal's Editors as Word attachments. The first page of
  the manuscript should include the title of the paper and the
  author's name, affiliation, address, telephone number and
  email address.
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  abstract (150 words) and up to five key words.
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- References and citations should follow the <u>BNU Harvard
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Journal of Crowd
Safety and Security
Management
An online journal

Editors' Statement

The Journal of Crowd Safety and Security Management – *An Online Journal* (JCSSM) i*s* an educational, industry oriented journal which is designed to serve as a forum for practitioners, scholars, and students who are actively engaged in the academically fledgling industry of crowd safety and security.

The Journal seeks primarily to publish:

a) Summarised and edited versions of practitioners' work-based projects. The aim is to share and disseminate the findings of these projects to a wider audience. Practitioners' projects are selected, not necessarily because of their methodological rigour or the significance of their findings, rather they are chosen because of the relevance and importance of their work to the current development in the industry.
Although practitioners' projects are summarised and edited, the responsibility for the rigour of the research and the validity and reliability of the findings remains with the authors.

b) Good quality well developed industry-based research articles after subjecting them to double blind reviews.

In addition, the Journal will publish essays, discussion and research notes, book reviews, and commentaries. The overriding aim of the Journal is to contribute actively to the professionalisation of the crowd safety and security industry by creating a platform which encourages dialogue between the industry and academia, and promotes research and good practice.

The Journal is published twice yearly, and the Editors will strive to include in each issue:

Abridged and edited practitioners' work-based projects
Articles subject to double blind reviews (5000 - 7000 words)
Research notes and discussions (description of work in progress, 1000 - 1500 words)
Industry views (perspectives from practitioners, 1000 - 1500 words)
Book reviews (1000 words)
Commentaries (500 words)
News, events, education fora, conferences, seminars

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INTRODUCTION
by
Dr Mick Upton

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Throughout fifty years of working in the private security industry I often found it frustrating that no formal qualification existed in the crowd safety management sector to indicate the level of individual expertise. A lack of a formal qualification meant that people that had successfully managed complex crowd safety operations at international level repeatedly had to justify their ability to local authorities and new clients.

It's true that industry associations have tried over the years to introduce qualifications and there were some successes with the Security Industry Training Organisation (SITO) programmes and some companies did write effective in-house programmes. What was needed however was an academic route that would allow practitioners to gain a credible qualification and at the same time establish an information network that would enhance organisational learning.

My initial meetings with academic institutions, held to consider the introduction of vocational courses, were unsuccessful. Understandably, universities and colleges preferred to focus on academic programmes aimed at personal development; they saw no future in offering courses on subjects that they had little knowledge of or interest in.
It was not until I met Professor Chris Kemp at Buckinghamshire Chilterns University College (Now Buckinghamshire New University, BNU) that I found a person that understood what it was that I was trying to achieve. My meetings with Chris subsequently led to the first Crowd Safety Management Foundation Degree (FD) course.

The introduction of the Crowd Safety Management FD found immediate support from the United Kingdom Crowd Management Association (UKCMA) and the Production Services Association (PSA), and prominent members of the leisure security industry agreed to pilot the course. The outcome was a two-year distance learning programme that now attracts candidates from home and abroad.

Encouraged by the success of the FD programme, BNU created the Centre for Crowd Management and Security Studies in order to develop research programmes and broaden the scope of courses offered. Following the introduction of mandatory licensing for the private security industry, BNU introduced the Protective Security Management FD in order to provide a career path that would allow experienced close protection license holders to progress to consultant level. Key industry specialists from the police, military and the private security industry supported the introduction of this course.
The FD programmes now in place do more than provide an academic award however; they also encourage candidates to go

further. Many people have gone on to take BA (Hons) and Masters programmes and the research carried out for these programmes does not sit gathering dust on university shelves. BNU regularly publishes interesting papers with the aim of assisting further learning and graduates are invited by BNU to become tutors and guest lectures. This policy has the advantage in that it keeps the courses fresh and the candidates on a course know that tutors have experience of their subjects.

The selection of papers published here is intended to illustrate the broad range of studies now carried out at the Centre for Crowd Safety and Security Studies (BNU). I hope that you find them interesting and engaging, and your comments and feedback are welcome.

1 AN EVALUATION OF THE IMPACT OF THE SECURITY INDUSTRY AUTHORITY ON THE OPERATIONAL EFFECTIVENESS OF CLOSE PROTECTION OPERATIVES

Glenn Fraser Payton
April 2007

Abstract
This paper uses a questionnaire survey and purposive sample to evaluate the impact of the Security Industry Authority (SIA) on the Operational Effectiveness of Close Protection Operators (CPOs) in London, UK; particularly in raising standards and professionalising the security industry. The study shows that few licence holders have been checked by the SIA, and less than 50% of respondents thought that the operational effectiveness of CPOs had improved. It suggests that the SIA is not doing enough to investigate and prosecute illegal operators and that little has been done to improve the operational effectiveness of CPOs. It also identifies the link between effective enforcement and the raising of operational effectiveness in the industry. The study is the first to be carried out showing how successful the SIA has been; it identifies the need to conduct a more in depth research on the SIA licensing and enforcement activities.

Introduction

The aim of this study is to look into the effect that the establishment of the Security Industry Authority (SIA) and the Private Security Act (2001) had on the operational effectiveness of Close Protection Operators (CPOs). It will focus specifically on Protective Security to determine whether the SIA has improved Close Protection Training within the Private Security Industry in London, UK, and thus the operational effectiveness of Close Protection Operators. As many companies are looking for loopholes in the regulations to avoid SIA licensing, the paper also looks at any comparison between SIA licensed CPOs and those unlicensed operators directly employed by companies to provide CPO duties in-house. Although no research is available on this subject, information is, nevertheless, available on the SIA and the subject of licensing and its importance in raising standards in the security industry. Padgham (2006) states that "as a direct result of the Private Security Industry Act 2001 and the birth of the SIA, regulation for Close Protection (CP) will eventually clean up the sector". However, enforcement is an issue; the SIA, in its 2006 report, sends the wrong message by describing prosecuting as a last resort: "We know that prosecuting offenders can be expensive and it is not always the most effective way of gaining compliance". The same report also shows that large numbers of investigators are concentrating their efforts on monitoring manned guards and door supervisors who are easier to locate, leaving the unlicensed CPOs in relative safety of detection or prosecution. SIA website (SIA, 2007) confirms the above statement, as none of the 482 names of security operators who have had their licenses revoked or

suspended by the SIA are Close Protection license holders. The Private Security Industry Act (PSIA) was brought in to professionalise the UK security industry, to raise the standards of operators by ensuring all individuals are vetted, trained and licensed (SIA, 2001). Its aim is to cast away the image of the industry as one of low paid, poorly qualified and unmotivated work force with poor career development or future prospects.

Study Method

Due to the limited information surrounding the operational effectiveness of CPOs and the lack of secondary data and statistics, it was decided to conduct a questionnaire survey of a purposive sample of security providers and licensed CPOs in London, UK. Adopting a quantitative approach enables large amount of data to be collected in the shortest possible time, cost effectively and with the minimal disturbance to an individual's work. It also allows the findings to be extrapolated and generalised.

Gaining information about the CP industry and identifying and targeting working CPOs are difficult due to the limited number of operators, restrictive practices and the veil of secrecy that envelopes the profession. To overcome these difficulties, the questionnaire was administered to a small sample of five suppliers and 100 individuals operating in the Close Protection Industry. Asking the suppliers to assist with the research, increased the ability of the researcher to locate and reach CPOs, and provided a form of snowballing sampling strategy. Fifty one responses were received, thus further limiting the reliability of the findings.

SIA: Perceptions of Close Protection Operators

Only five respondents (9.8%) had no relevant CP training. Twenty nine (57%) had completed a SIA approved course whilst the remaining seventeen (33%) had completed a CP course not recognised by the SIA (see Figure 1). Whilst the above data indicates that the majority (90%) of operators within the industry had completed some form of CP training, it also suggests that 44% of CPOs do not have the relevant training courses as required by the SIA. They are thus currently operating illegally and do not have the recognised standard of training to carry out CP operations in the UK.

Fig 1. Training Undertaken
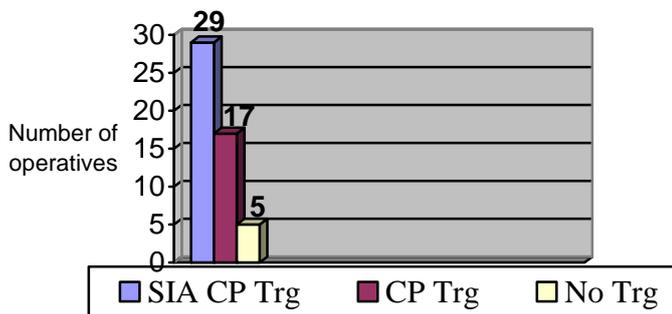
Possession of CP Licence

Twenty seven respondents (53%) had a SIA Licence to carry out CP duties in the UK; the remaining twenty four (47%) were operating illegally, without a SIA licence, although most had received some form of CP training. This suggests that large numbers of CPOs are working illegally, as they are not licensed by the SIA.

Improvement in Standards

Twenty seven respondents (53%) believed that under the SIA standards of CPO operational effectiveness had increased, whilst the remaining twenty four (47%) believed that it had done little to improve the standards of CPOs. This suggests that nearly half of the individuals questioned believed that the introduction of the SIA has done little to improve the operational effectiveness of individuals working within this area of the security industry and that the SIA has failed in its objective to raise the standards of the CP industry.

SIA Enforcement

Only three respondents (6%) had ever been approached by the SIA and checked whilst carrying out their duties. This indicates that 94% of CPOs have never been approached by the SIA whilst carrying out their duties as CPOs. This statistic seems to highlight the short fall in the ability of the SIA to effectively enforce its licensing of the UK Close Protection Industry. It also suggests that there is no real reason to undertake an expensive course and purchase a costly licence as the chance of being checked by a SIA inspector is extremely low. The findings seem to support the belief that the SIA is unable to enforce and maintain its own standards, and that this could be a contributing factor to the proliferation of unlicensed CPOs operating within the UK.

Knowledge of SIA Enforcement

Seven respondents (14%) had known somebody that had been checked whilst working in the UK. The most surprising statistic is that only two respondents (4%) knew that their company had

been targeted and checked by the SIA to ensure that they were abiding by the licensing requirements. The remaining 96% stated that their company had never received a visit by the SIA. This is a major concern highlighting the inability of the SIA to effectively enforce its own standards within the industry.

Improving Operational Effectiveness

The views of the CPOs on how they thought operational effectiveness could be improved within the sector are shown in Figure 2. It is significant to note that some of the CPOs that were operating illegally thought that the licensing regulations should cover in-house CPOs, and that there should be more enforcement and harsher penalties for those caught operating illegally. It should also be noted that although twenty four individuals were operating illegally at the time of the survey, seventeen (71%) stated that they would be applying for a license.

Fig 2. How To Improve Operational Effectiveness
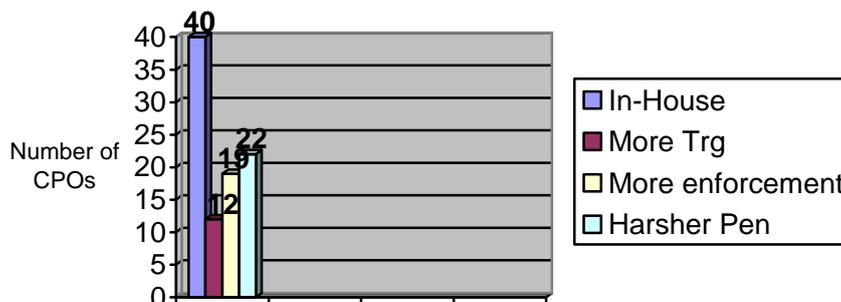
Conclusion and Suggestion for Further Research

The problem that the SIA faces is that a large proportion of CPOs are currently unlicensed and have not completed the minimum requirement set by the government (Act 2001) in terms of relevant training or attainment of standards necessary for operating in the specialist environment of the Private Security Industry. This disregard to Government regulations, the research shows, is due to the inability of the SIA to effectively monitor and investigate CPOs whilst carrying out their duties. In addition, because the SIA licence requirements only covers contract CPOs, individuals are currently carrying out CPO duties with no qualifications by being employed directly or 'In-House'.

The findings also show that a large proportion of the CPOs have completed some form of CP training. It can also be seen that just over half of these individuals have a SIA CP licence which allows them to legally work as CPOs in the UK. The findings further indicate that a number of licensed CPOs believe that since the formation of the SIA standards of CPOs have risen, whilst the same

number of non-licensed CPOs believe that the SIA has done little to improve the standards of CPOs' operational effectiveness.

It is significant that a very small percentage of operational CPOs and companies have been checked by the SIA whilst carrying out their duties. It can, therefore, be concluded based on the findings that the SIA is not effectively inspecting or enforcing its own standards within the CP industry, and as such half of those individuals questioned operate illegally. These findings further indicate that because of the ineffective enforcement and prosecution SIA policy, there is little prospect that the proportion of licensed and unlicensed CPOs will change or that the SIA achieve its objectives of professionalising the industry. The reluctance of the SIA to prosecute those that work outside the law has, as this study suggests, led to a disregard of the standards set by the SIA. The prosecution of unlicensed individuals operating within the CPO industry and the raising of standards of operational effectiveness appear to be directly linked, and until the SIA starts to proactively target CPOs, the standards will not rise.

Caution must be exercised in attempting to generalise the findings of this exploratory, London based, study where the sample was small and the respondents were few. It is thus recommended that a further, more in depth research is carried out in other parts of the UK to gain a greater insight into operational effectiveness in the security industry and to draw regional comparisons.

References

Elias, E. (1986) *Quest for excitement: Sport and leisure in the civilizing process.* Oxford: Basil Blackwell.

Padgham, G. (2006) *Close protection the softer skills.* Cambridge: Entertainment Technology Press Ltd.

Private Security Industry Act (2001): Elizabeth II. Chapter 12. Reprinted January 2005. London: HMSO

Security Industry Association (2007) [online]. Available from:http://www.sia.org.uk [Accessed 30 March 2007]

Veal, A J. (1992) *Research methods for leisure and tourism: a practical guide.* 2nd ed. Harlow: Pearson Education Limited.

Student preferred to remain anonymous
April 2007

Abstract
The purpose of this study was to identify if designers of super-yachts were influenced by the requirement for protective security measures. A qualitative design approach was adopted, and data was collected from interviewing a purposive sample of industry designers, protective security consultants and a client, using semi-structured interviews. Secondary data was also sourced mainly from the internet concerning specialist subjects on the topic of maritime security. The findings seem to support the proposition that protective security would influence the design in some form, whether requested by the client, regulated by the governing bodies or simply as a requirement to protect very-important-persons (VIPs). The study has implications for the industry; it calls for a greater liaison between designers and protective security consultants for the benefit of both parties. It also points to the need for undertaking further research to elicit the views of prominent shipbuilders from Germany, Holland and North America.

Introduction

During the 1970s the design and building of super-yachts was only a cottage industry. Only a few people possessed the wealth to afford an item of such indulgence and luxury. However, thirty years later the number of billionaires worldwide has, according to Forbes (2006), increased from 150 to 793. This increase in the number of extremely wealthy people has helped contribute to the large sums of money being invested in the building of super-yachts (Rushe and Armitstead, 2007). In this same Sunday Times article, Rushe and Armitstead point to the fact that demand is out-growing supply for personal ownership and chartering of super-yachts and by 2010 the number of yachts of 50 metres or more under construction is expected to have tripled.

The House of Commons' eighth report on transport, Department for Transport (2006) states: "Since 1992, there had been a total of 3,583 piratical attacks worldwide. This represents an increase of 168% between 1992 and 2005. In the same period 340 crew members and/or passengers died at the hands of pirates, and 464 received injuries."

Due to the very nature of protective security, where anonymity is one of its greatest strengths, it is unlikely that information regarding the protection of these vessels will be released or published in the public domain. Despite the attention that some of these owners enjoy, anything regarding their own personal security would be difficult to obtain without inside information. Only those actually involved within the industry would be party to this information. However, designers, shipbuilders and protective security consultants would be reluctant to

release this information as they would want to protect their own livelihoods, methods and techniques, and because they would be under contracts drawn up by the clients or governments concerning issues of disclosure.

Hence there is very little literature published on the subject. If there is, it will be either in the form of unwelcome news (a leak in security) or information deliberately fed to the press that will be designed to mislead members of the public or potential threats from would be aggressors, as demonstrated recently in one national newspaper where the wrong yacht was showcased (Daily Telegraph, January 15th 2007).

Some methods of security will be of common knowledge (safe havens, escape routes, closed-circuit-television, tracking devices and bullet proof glass); however, the methods in which they are employed will be jealously guarded. The designers will also guard their innovations and own techniques of protective security that they apply in the vessels' design (the prevention of intruders boarding from smaller craft, usually from the rear), as this will give them an edge over their competitors when submitting their product to the client for consideration.

Currently the only literature available to aid the designer in design considerations are: the seafaring regulations set by the Safety of Life at Sea Conventions - SOLAS (1914), the International Maritime Organization - IMO (1960), and the International Ship and Port Facility Security Code - ISPS (2004) which forms part of SOLAS. The only other source is the insurance companies, such as Lloyds and Registro Italiano Navale - RINA (1861), who have devised their own rules in conjunction with the SOLAS regulations specifying the standards that the construction of these vessels must meet to be insured before they can be put to sea. For these regulations to be implemented the shipyard builders will take all the liability to ensure that the ship functions correctly as a sea-going vessel to suit Lloyds and RINA specifications. The protective security experts also have a requirement to be aware of these regulations due to their position as mediators between all the parties involved in the build, and to the law and legislation in governing the carriage of firearms on board for self defence when transiting around the world's more dangerous seas. Protective security issues are also usually reliant on protective security consultants being brought in to aid the designer in producing a product that the consultants have identified to be of benefit to the client's security and liking.

Study Method

The study was of a qualitative nature and the main method employed to collect data was to interview those directly involved in the industry: designers, protective security consultants and a client, using semi-structured interviews. The information collated was then analysed to ascertain if protective security has affected the design

of super-yachts. Secondary data was also sourced mainly from the Internet concerning the topic of Maritime Security.

The main findings of the report, albeit small scale-due to timeconstraints, was thus based on experts' accounts stemming from their industry knowledge, experience and expertise. These experts were drawn from the design area (two designers), the Protective Security area (three security experts) and a client who owns a super-yacht. By interviewing these subject experts, who are at the forefront of knowledge in their industry, current and factual information would be gained to help set benchmarks for others in the industry to follow. A short list of questions was used and the interviews were conducted in a relaxed manner allowing the subject expert interviewees to freely talk around the subject without the interviewer interrupting and influencing their answers. It is the direct answers given by these experts that were collated and formed the data for the main findings of this paper.

Protective Security and Super-Yacht Design

The super-yacht owners are extremely wealthy individuals. These people, who are the Protective Security Industry clients, and their material possessions, present a target for unwanted boarding, thieving, piracy and terrorism that make the prevention and combating of these threats necessary. For some clients however, the main perceived threat is the intrusion on their privacy from the media who prove to be both persistent and encroaching.

The evidence from this study suggests that since the increase in piracy and the threat of terrorism, protective security had become necessary and protective security experts more influential in the past fifteen years.

All the Protective Security experts interviewed indicated that they had previously, or were currently being employed to advise designers in incorporating security measures and features into the designs of super-yachts. This was to safeguard primarily the client; and secondly their possessions, including the yacht; and protect its working crew.

Common reoccurring themes of the preventative measures stated by the interviewees were the following:

- CCTV
- Lighting – used in port to deter persons from approaching the vessel and to prevent media cameras from catching unwanted footage of the client.
- Infra red light systems – for viewing at night into areas of darkness.
- Safe havens – for the client, crew, and areas of strategic importance (the bridge, engine rooms) used in the event of unwanted boarders.
- Security control point – a room sometimes placed near boarding points when in port that will control all visitors' access and CCTV in and around the ship.

- Access routes to and from the VIP quarters – these will be separate from the main crew routes and could link directly into the escape plan.
- Global tracking devices that are installed giving an up to date location of the vessel for the authorities to monitor.
- Other means of transport used as a means of evacuating the VIP – e.g. Helicopters, high-speed tender craft and submarines; these all require housing features to be considered during the design process.
- Screening areas using two way glass preventing intrusion by the media, but allowing the owner to remain outdoors with their privacy intact.
- Sunken seating areas outside that also remain out of sight to the media.
- Bullet proof glass – in and around the VIP quarters.
- Personal lifeboats - located in close proximity of the VIP quarters.

It was also established from the interviews that the main factors influencing design consisted of four groupings:

- The client – in regards to their requests and the product that they wish to purchase.
- The designer – in terms of producing a product of style that is appealing to the client and both practicable and feasible.
- The protective security consultant – in advising and requesting protective security measures appropriate to the perceived threat that are legal (e.g. carriage of firearms), where is the vessels geographical base likely to be?
- The shipyard builders and engineers – are the requests feasible, can all the parties' wishes and requests be incorporated into the build through modern technology, and do they meet the requirements of the governing bodies, e.g. SOLAS?

However, all the above will be affected by one overriding influence; money and the overall cost and budget required in the building and maintenance of the vessel.

Conclusion

From the viewpoint of the designers, the design and implementation of security measures was client driven. If the clients or their advisors felt the need or requirement to include such preventative measures then it would be included (e.g. bullet proof glass, private escape routes from the VIP quarters or even the positioning of lifeboats). The designers were also of the opinion that continuous evolution of super-yacht design, through the use of cutting edge technologies, allows them to incorporate new products, features and innovative ideas, such as features usually only applied to vessels in use with military navies.

The findings suggest that, depending on the clients' status, security issues would influence the design to some degree. The findings also suggest the extent to which security influences design is dependent on the cliens'/state's own interpretation of the threat posed to them, the concern for the protection of their personal possessions and wealth, the geographical location/base of the vessel, and the advice they receive from hired protective security personnel. However, money was viewed as the overriding factor in the wish list of the client, designers, protective security consultants and shipyard builders that ultimately, would influence the design process.

References

Daily Telegraph (2007) (Title). *Daily Telegraph*. 15 January, (page).

Department for Transport (2006) *House of commons-transport reports: sixteenth special report: piracy* [online]. U.K GOVERNMENT. Available from: www.publications.parliament.uk/pa/cm200506/cmselect/cmtran/cmtran [Accessed 25 December 2006].

Forbes (2006) *Forbes rich lists* [online]. Forbes. Available from: www.forbes.com/billionaires [Accessed 15 December 2006].

International Maritime Organization (1960) *Focus on maritime security* [online]. IMO. Available from: www.imo.org/includes/blastData.asp?doc_id=3808 [Accessed 5 January 2007].

International Ship and Port Facility Security Code (2004) *Ship and port security – the isps code* [online]. PML. Available from: www.shipandportsecurity.com/isps-code.asp [Accessed 20 December 2006].

Registro Italiano Navale (1861) *Rina: Rules for charter yachts* [online]. 2006. RINA. Available from: www.rina.org/eng/yachting/yachting.asp [Accessed 20 December 2006].

Rushe, D. and Armitstead, L. (2007) Bigger toys for the bonus boys. *The Sunday Times.* 15 April, p 8.

Safety of Life at Sea (1914) *International convention for safety of life at sea (SOLAS)* [online]. 1974 Adoption. Available from: www.imo.org/Conventions/contents.asp?topic_id=257%doc_id=647 [Accessed 20 December 2006].

3 REFRESHER TRAINING FOR SECURITY INDUSTRY AUTHORITY CLOSE PROTECTION OPERATIVE LICENCE HOLDERS: A PRELIMINARY INVESTIGATION INTO KEY CONTENT AREAS

Geoffrey William Padgham
April 2007

Abstract
The Security Industry Authority (SIA) competency for licensing renewal strategy (2006) directed awarding bodies to extend accreditation of their existing SIA licence linked qualifications without additional training. This announcement enabled Close Protection Operatives (CPOs) to secure a renewal of their licence without any additional training. It also set the scene for this exploratory study, whose purpose was to explore key content areas for refresher training of SIA-CPO licence holders. This study was also timely as the competency for licensing renewal strategy further announced a major review of all security core competencies for qualifications in 2010. Data was collected from a questionnaire survey targeting CPOs, triangulated with data from interviews with public security services personnel and with documentary evidence. The findings indicated a preference for a refresher course that has a strong focus on practical skills. They also pointed to some common protective competency areas between private and public sectors' security refresher training content.

Introduction

The Private Security Industry Act 2001 (PSIA, 2001) outlined the main functions of the SIA that included all Private Security Industry (PSI) sector licensing. In December 2004, security sector licensing dates were announced (SIA, 2004a) and since March 2006 it became a criminal offence to work as a Close Protection Operative (CPO) without being the holder of an SIA licence.

CPO licences are valid for three years and the communiqué regarding the competency for licensing renewal strategy (SIA, 2006) extended accreditation of existing SIA licence linked qualifications for an extra three years without the requirement for additional training. This communiqué also announced that the SIA would commence a 'Schedule for Major Changes' to Close Protection (CP) core competency specification in May 2010. Any necessary changes to the training and qualifications for CPOs are to be updated and, where appropriate, any new SIA specification will take effect from November 2010. Effectively this has created a situation where SIA licensed CP operatives can undertake contract work for a total of six years without any additional mandatory training or Continuing Professional Development (CPD).

The delay in setting any guidelines or criteria for CP refresher training provided the background of, and motivation for carrying out this exploratory study, focusing on key training content areas.

According to 'Skills for Business' (2004), the Security Industry Training Organisation (SITO) facilitated a CP sector consultation group to identify National Occupational Standards (NOS) for CP. These standards were published in November 2004 and provided a structure for SIA qualifications. The specification for core competency training and qualifications for CPOs was developed from the NOS (SIA, 2004b), which clearly defined the CP licensing requirements. In defining core competencies, the SIA (2004b, p.5) proposed a 'close protection training model' that identified skills that were not mandatory for SIA licensing. They included skills for employment and specific assignments that could be offered at the discretion of approved training providers; specific reference was made to the fact that firearms training for PSI CPOs in the UK is illegal. The specification designated first aid as a separate CP licence requirement and would therefore be an additional training need outside the SIA core competencies. Padgham (2006, p.31) also identified 15 mandatory aspects of theoretical knowledge and practical skills as the CP core competencies.

An updated regulatory impact assessment (Home Office, 2007, p. 27) supported the SIA refresher training policy and stressed the importance of best practice and continuing professional development (CPD) to complement the SIA competency for licensing requirements. It also raised the SIA licence fee for first-time applicants to any security sector by 29% from £190 to £245.

Furthermore, the SIA (2006) in their 'Competency for licensing renewal strategy' identified CPD as part of their long-term strategic approach to SIA licence renewal. CPD is also seen as a central educational requirement for the Qualifications and Curriculum Authority (QCA, 2006). An announcement of CPD through professional registers was made by SfS (2006a) and a Memorandum of Understanding (MOU) was agreed by the SIA and SfS (SfS, 2006b). In this Memorandum, 'Skills for Security' has the responsibility of ensuring that training, qualifications and CPD routes are available to assist candidates with their licence renewal. SfS has also announced a professional register for private security industry operatives as a verifiable public record of on-going CPD (SfS, 2006a). On successful completion of a CP course a SIA licence holder's current option to opt-out of any further refresher or continuation training will not be available.

In 2006 the Home Secretary announced new national terrorism threat levels (Home Office Security, 2006; MI5, The Security Service, 2006) and highlighted Government policies that could be incorporated into any future CP refresher training programme. The extension of SIA licensing to Scotland in 2007 (Office of Public Sector Information, 2006) identified new legislation and the need for licensed CPOs to be updated on a wider SIA regulatory area. It is these new policies and regulations that prompted this study in the hope that it will usefully add to the core competency work undertaken by SIA CP.

Study Method

A mixed data collection methodological design was adopted as the most appropriate approach to achieve this study's objectives. Data for quantitative analysis was collected through a questionnaire administered to a purposive sample of operational CPOs. The questionnaire was tightly focused and provided simple questions that followed a logical sequence (Oakshott, 2006). However, despite the simplicity of design, from an initial circulation to 100 CPOs only 31 responses were received. A back-up sampling strategy was implemented and questionnaires were distributed to a further 27 CPOs, personally and via electronic mail, generating 11 additional replies. The total number of responses of 42 thus accounted for 33% of the sample population.

Interviews were conducted with the Chief Executive of SfS – CE (SfS) and three key personnel from the Metropolitan Police Special Branch (MPSB) - Protection Department; the Special Air Service (SAS) Close Protection Cell; and the Royal Military Police (RMP) - Protection Training Wing. These face-to-face interviews were kept short to less than 15 minutes to maximise the willingness of the interviewees to participate and to focus on the sought information. The interview with the CE (SfS) provided an insight into SIA training strategy. The other interviews were designed to provide data relating to the refresher training content of well-established CP training organisations in the public sector to identify patterns of training content which may be suitable for the private CP sector.

Documentary data was also used from web search, publications, legislation, journals and SIA regulatory announcements.

Access to operational security operatives, logistical difficulties in undertaking planned interviews, and time constraints, were all limiting factors in this study. The researcher, a director of a security company, is known in the private security industry; this aided access to key personnel and identification of the sample population of CPOs. It was not possible to circulate the questionnaire to all CP licence holders on the SIA database because of a concern about the confidentiality of personal data.

Copies of the findings of this study were sent to the Competency Officer at the SIA and to the CE (SfS).

Findings

The results of the questionnaire responses are displayed in Figure 1. The chart shows that 64% of respondents had received some form of formal training, and that of those CPOs, 16 (38%) respondents had only participated because CPD was mandatory and 14 (33%) respondents had chosen to undertake it on a voluntary basis. 77% of all respondents supported a mandatory approach to future SIA CP refresher training.

Appendix A Responses
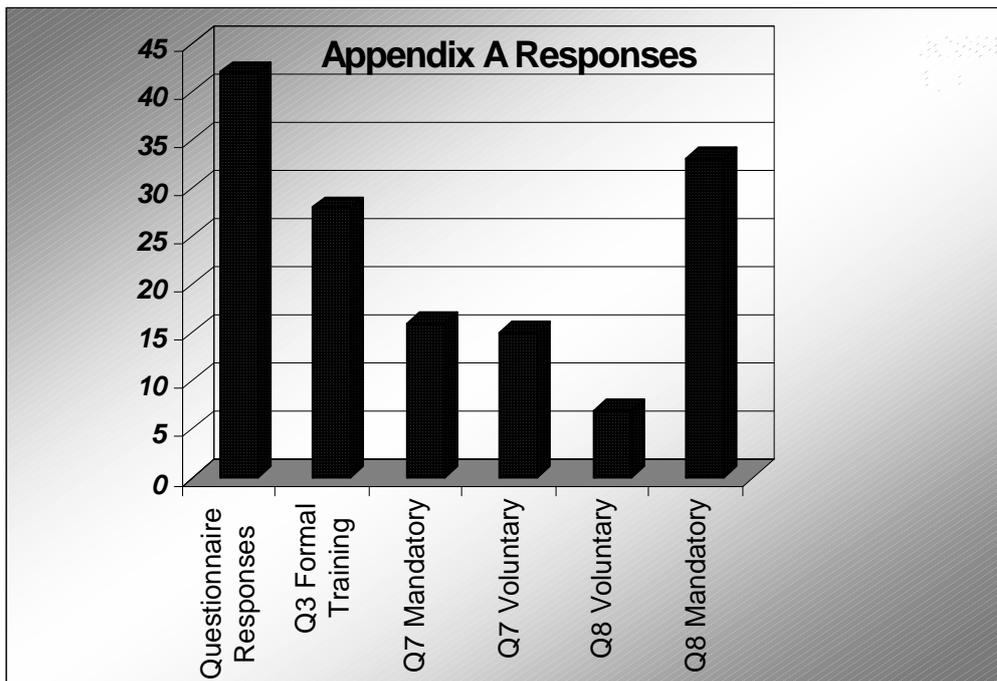
Figure 1 Questionnaire responses: Status of training

The responses to the suggested areas of key content in any refresher training programme were broad in their content selection and might have demonstrated a lack of SIA licensing knowledge by the respondents. Nevertheless, the responses provided a range of ideas for training content (see Figure 2).

Eighteen respondents (43%) indicated a preference for some form of tactical training. They expressed a desire to participate in practical CP scenarios including close protection walking techniques, security driving, and specific mention was made of protective vehicle car techniques i.e. embus and debus drills. Fourteen respondents identified the need for continued first aid training.

The third highest response desired an update on law and legislation in relation to protective security. Only one or two respondents made any reference to technical sweeps training, etiquette, SIA policy or other general core competency skills as a required training area. An update on law and legislation was favoured by 25% of respondents, showing an interesting shift in attitude of the modern CPO for some theoretical input. Several respondents indicated that cost was an important factor to consider in any decision on the content of future CP refresher training.
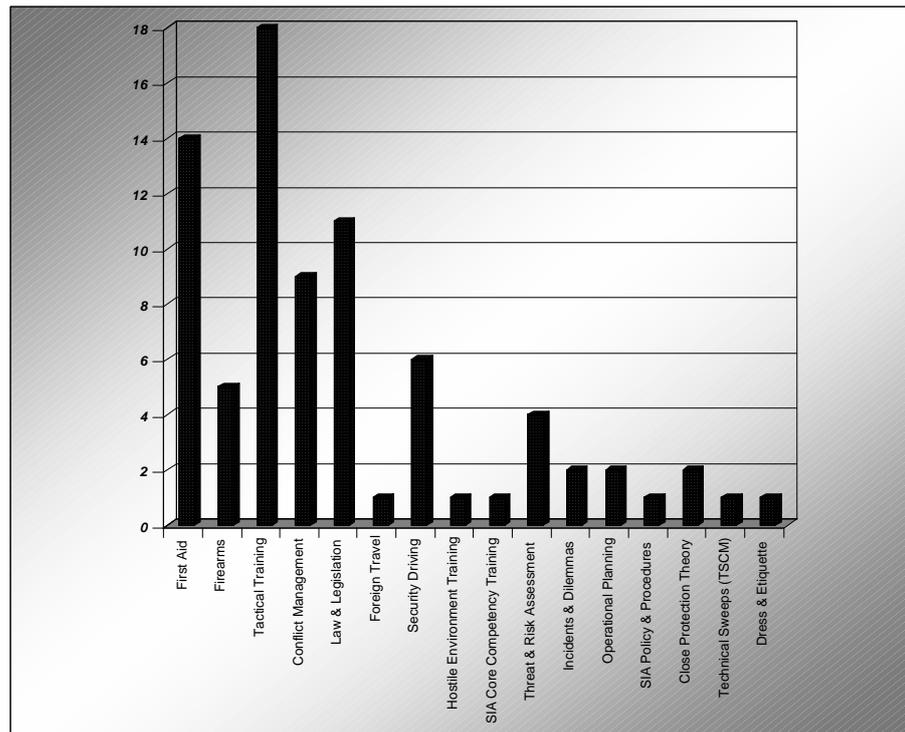
Figure 2 Questionnaire responses: Suggested training content areas

Responding to the question of whether there were any early SIA plans for CP refresher training on the expiry of a CPO licence period, the Chief Executive (SfS) replied: "*No, none at that stage. It was anticipated that there would have to be something. It was always talked about that the SIA would have to raise the bar; to end up with 150 hours was a big leap*". Her last sentence was a reference to the new guided learning hours criteria that was set as a minimum qualification requirement for a Level 3 SIA CP licence training course. In expressing her views on whether CP refresher training should be mandatory, she retorted: "*Yes, but it could be supplemented with a CPD route that would need checking. They would need signing off by a competent assessor*". Her preference for a mandatory refresher training route was also supported by 32 (76%) questionnaire respondents, indicating a substantial endorsement for an enforced CP refresher training course.

The CE (SfS) further commented that any future refresher training content should reflect changes that have occurred since the original competency specification (SIA, 2004b) was published. New legislation, door supervisor licensing law, and police updates were possible content areas identified by CE (SfS). She also emphasised that only SIA endorsed awarding bodies and approved centres should be allowed to deliver any SIA CP refresher training, thereby guaranteeing a continued measure of quality course content and security industry regulatory control.

The MPSB interviewee stated that the Metropolitan Police have a very structured approach to CP refresher training. After the initial

training police protection officers are immediately deployed onto close protection duties and are required to undertake a programme of continuing refresher training which includes: firearms training every two months with regular assessments, a two day tactical refresher course every six months, a one day officer safety training (OST) course every six months, and an annual fitness test. He further stated that regular refresher training is designed to maintain a range of skills at a sufficiently high standard necessary for the role.

The SAS interviewee stated that historically the SAS was the first public sector organisation to formalise protection training. They provide protection for very senior military personnel and specialise in hostile environment theatres of operations. On completion of the initial CP course, other than weekly firearms training, SAS personnel do not undertake any refresher training until they are deployed on a protection task. Their pre-deployment training course is of five days duration and designed to update practice and procedure in the following skill areas: emergency procedures for repatriation, enemy contact drills, radio communications for the task, operations room, live weapons range training, rules of engagement (ROE), tactical driving training including armoured and soft skin vehicles.

The RMP interviewee indicated that the RMP follows a similar policy to the SAS and their personnel do not undertake any refresher training until they are deployed on a military police protection task. Their pre-deployment refresher training course is of three and one half weeks duration and incorporates a package including: operational training, advisory group training, weapons training including the ROE, physical assessment, cultural advice for country of deployment, team cohesion, driver training, standard operating procedures for attack, intelligence briefing, and in theatre operations training.

The refresher course content of all three public sector protection organisations outlined in the interviews illustrated their wider protection responsibilities. Large parts of each course programme included elements such as military tasking; emergency procedures for repatriation and weapons training that are specific for police or military roles. These elements are not part of the SIA core competency requirements (SIA, 2004b) and in the case of firearms training, that is currently illegal for the PSI in the UK.

It was apparent from the RMP and SAS interviews that after a soldier's basic close protection course, many months or even years could pass before the soldier was given a protection assignment. This fact explained why no additional refresher training was undertaken until a soldier was deployed to protection duty; this is contrasted with the Metropolitan Police programme of continuing refresher training. Undoubtedly, elements of the police programme such as tactical refresher courses could be adopted in the private CP sector. Additionally, interviewee CE (SfS) indicated a preference for a mandatory CPD refresher training route that reflected changes that have occurred since the original competency specification (SIA, 2004b) was published. New terrorism threat levels (Home Office Security, 2006) and the announcement to adopt the SIA as the PSI

regulator in Scotland from November 2007 (Office of Public Sector Information, 2006) have provided evidence to support a case for changes in policy, procedure and law to be included in any CP licence refresher training programme.

Conclusion

The findings from the questionnaire responses identified a range of CP skill areas that CPOs considered of most importance. The largest response favoured the more practical elements of CP training, particularly, tactical exercises and conflict management as part of a structured CP refresher training programme. Some theory input was favoured with an emphasis on law and the legal responsibilities of a CPO. This point was also supported by changes in Government policy and legislation (Home Office Security, 2006; Office of Public Sector Information, 2006). Some respondents identified firearms and first aid as being important for refresher training. It was noted that first aid was a mandatory requirement for an SIA CP licence holder under separate core competency specification (SIA, 2004b), and that firearms cannot be legally carried by a PSI CPO working in the SIA licence area of England and Wales. PSI cost implications of any defined future refresher training was an important consideration for many respondents.

The three public sector protection interviews provided a comparison for potential CP refresher training content. Many elements, such as firearms training and military operational procedures were inappropriate for consideration in the private sector. The interviews clearly identified tactical exercises, conflict management, team cohesion and driver training as relevant refresher training issues. All of these points were also identified in the CPO questionnaire responses. This suggests that these elements need to be incorporated into both public and private sector CP training. 76% of questionnaire respondents supported a mandatory programme of CP refresher training as did the CE (SfS). Without a clearly defined mandatory refresher training programme, it is likely that a large percentage of the 2183 SIA licensed CPOs (SIA, 2007) will not undertake any additional training.

The comparison made between the public sector CP refresher training content and the private sector has also highlighted the important issue of cost and available resources to the CP licence holder and training provider. In determining future refresher training it is important to strike the right balance of appropriate content versus course length and cost. Some of the public sector close protection refresher training courses may usefully be emulated by the private sector.

The importance of having a PSI regulated sector with operational CPOs who are professionally trained does not seem to be in question. Any future SIA training decisions may balance an encouragement for security operatives to willingly embrace a CPD

approach like the SfS professional register (SfS, 2006a) with a mandatory schedule of CP refresher training that is affordable. This combined approach may address the need for refresher training to occur more frequently than is currently planned at the end of a three year SIA licence period.

It could be argued based on this study's findings that, in addition to any CPD professional register requirements and prior to the expiry and subsequent renewal of an SIA CP licence, a CPO should undertake a short refresher training programme. The timetable may include: an update on SIA policy, minimum theoretical input to include an update on CP related laws and procedures, communication and conflict management skills refresher training, teamwork, practical close protection exercises emphasising situational awareness, tactical options and vehicle drills.

References

Creswell, J. (1994) *Research design. Qualitative and quantitative approaches.* 1st edition. London: Sage.

Heritage, K. (1997) *Report writing in a week.* 3rd Edition. London: Hodder and Stoughton.

Home Office (2007) *Updated regulatory impact assessment to reflect new licence application fee and charges* [online]. Available from: http://www.the-sia.org.uk/NR/rdonlyres/8179D6C0-8B48-47CA-937D-DFB6A5C0FF01/0/sia_licence_fee_ria.pdf/ [Accessed 9 April 2007].

Home Office Security (2006) *New international terrorism threat levels* [online]. Available from: http://security.homeoffice.gov.uk/news-publications/publication-search/general/Threat-Levels/ [Accessed 6 January 2007].

MI5 The Security Service (2006) *Threat levels: The system to assess the threat from international terrorism* [online]. Available from: http://www.mi5.gov.uk/output/Page482.html/ [Accessed 6 January 2007].

Oakshott, L. (2006) *Essential quantitative methods for business,management and finance.* 3rd edition. New York, USA: Palgrave Macmillan.
Office of Public Sector Information (2006) *Order made by Scottish Ministers to adopt the SIA as the security industry regulator in Scotland* [online]. Available from: http://www.opsi.gov.uk/legislation/scotland/sen2006/ssien_20060382_en.pdf/ [Accessed 8 January 2007].

Padgham, G. (2006) *Close protection – the softer skills.* 1st edition. Cambridge: Entertainment Technology Press.

Private Security Industry Act 2001. London: Stationery Office.Qualifications Curriculum Authority (2007) [online]. Available from: http//www.qca.org.uk/14662.html/ [Accessed 30 March 2007].

Security Industry Authority (2004a) *Security licensing dates announced* [online]. Available from: http//www.the-sia.org.uk/home/about_sia/news/nr_041222_sg.htm/ [Accessed 28 march 2007].

Security Industry Authority (2004b) *Specification for core competency training and qualifications for close protection operatives.* 1st edition. London: SIA.

Security Industry Authority (2006) *Competency for licensing renewal strateg*y [online]. Available from: http://www.the-sia.org.uk/NR/rdonlyres/CF6A82B1-66DA-4341-8492-ABEB7C8D8EEF/0/sia_competency_renewal.pdf/ [Accessed 18 December 2006].

Security Industry Authority (2007) *Licensing statistics* [online]. Available from: http://www.the-sia.org.uk/home/licensing/stats_2.htm/ [Accessed 20 March 2007].

Skills for Business (2004) *Security industry training organisation national occupational standards for close protection* [online]. Available from: http://www.ukstandards.org/Find_Occupational_Standards.aspx?NosFindID=4&FormMode=ViewModeSuite&SuiteID=1061/ [Accessed 6 January 2007].

Skills for Security (2006a) *Professional registers* [online]. http://www.skillsforsecurity.co.uk/productsandservices.htm/ [Accessed 1 April 2007].

Skills for Security (2006b) *Memorandum of understanding.* 2nd edition. London: Security Industry Authority.

Sennewald, C. (1996) *Security consulting.* 2nd Edition. Woburn, Massachusetts, USA: Butterworth-Heinemann.

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Abstract
This study examines the need for policing inside stadia for Premier League football matches. A mixed interpretive-quantitative research methodology was adopted where data was collected from interviews with safety officers and police match commanders, and statistics obtained from police records and deployment plans for the 2005-6 season in six Premiership football grounds in London. The findings suggest that it was plausible to extract police from the stadia for games that were categorised as low public disorder risk, and although stewards' training and abilities were highly thought of, safety officers preferred the reassurance of police presence within the stadium. Analysis of statistical data showed no correlation between the number of officers employed and the number of arrests made, the risk category for an event and the numbers of arrests and ejections, and the number of away fans attending and the number of supporters arrested or ejected.

Introduction

Before the tragedy at Hillsborough in 1989, stewarding was in its infancy, with no nationally recognised structure or training. The police were then perceived as the only agency able to control and manage mass crowds, with large numbers of officers posted at every music concert, festival and sporting event. Frosdick (1994) suggested that Lord Taylor's report into the Hillsborough disaster changed the emphasis of the policing approach from one of preservation of public order to one focused on public safety. The police were thus seen as being responsible for crowd safety at public events but, as indicated by Beckley (1994), there was a move to hand over this responsibility, within football stadia, to the Club's Safety Officer. The move away from police responsibility is articulated in an entry in the 'Green Guide' (DCMS, 1997:12) which states: 'Responsibility for the safety of spectators lies at all times with the ground management', handing the mantle of Event Commander from the Police Match Commander to the Club Safety Officer. The issue of 'duty of care' to persons attending events has also shifted away from the police to the event organiser ('The Home Office, 2006, Good Practice Safety Guide' and 'UK Sports, 2005, Staging Major Sporting Events: The Guide').

As early as 1991, there was a suggestion that high profile policing should be replaced by high profile stewarding supported by low profile policing (Frosdick, 2001). Over the last decade, the role of the steward has been enhanced and training for stewards greatly developed. The quality of this training has been recognised by the Government to the extent that in-house football stewards became exempt from licensing by the Security Industry Authority (SIA) under the Private Security Industry Act 2001 (FLA et al, 2005).

Stewards have thus taken on more responsibilities in the management of crowds including: searching those entering the ground, keeping gangways clear, managing licensed bar areas, providing initial responses to incidents, training in contingency and evacuation procedures, detaining persons for offences, and ejecting fans for breach of ground regulations. Meanwhile police appeared to move to a more traditional role of preventing crime and maintaining the peace. This is indicated by Home Office statistics for 2005-6 (Home Office press release, 2006) which shows that 43% of all games in England where police free. This fact, however, O'Neill (2005) pointed out, has escaped the attention of researchers in the field, who favour studies focusing on the interaction between police and fans, particularly the trouble makers inside football stadia.

Stott and Hoggett (2005) indicated that the cost of policing football in England and Wales was estimated at £30 million. There was thus a need to focus on reducing the cost of policing football matches and returning officers to their normal community based duties (Frosdick & Chambers, 2005). Whilst police and safety officers felt that the presence of officers inside a ground had a deterrent effect for those who may be intent on causing trouble, there is also evidence to suggest that as police presence inside stadia has been reduced, the incidents of disorder inside stadia has also reduced (O'Neill, 2005). Home Office statistics (2006) also indicate that arrests for football related offences have fallen for a third consecutive year, with total arrests being the lowest ever recorded.

This study will examine the need for policing at Premier League football stadia around London in the 2005 – 2006 season, focusing on the nineteen Premier League home fixtures each club played. There were six football clubs in the Premiership in London during that season: Arsenal, Charlton Athletic, Chelsea, Fulham, Tottenham Hotspur and West Ham United.

Study Method

A mixed methodological design was adopted, gathering and processing statistical data from Police and Home Office sources and conducting face-to-face interviews with police and club officials. A number of limiting factors, including time for project completion and occupational demands meant that there were limited opportunities to conduct a detailed study; as such, this study is only exploratory.
Each club employed a Safety Officer and a deputy, whilst the Police Match Commander came from a cadre of two or three people for each ground. This created a pool of around thirty people who would potentially supply the sought after information. Telephone interviews were quickly disregarded as they where considered impersonal, difficult to record and impractical. Questionnaires were inappropriate because of poor response rates

(Swetnam, 2000) and limited capacity to provide in-depth information. There was also a concern over the cost implications of sourcing the recording equipment and the time required to conduct, transcribe and analyse interviews. However, as assistance was offered to transcribe the material, interviewing was chosen as the main data collection method as it offered the opportunity to interact with the interviewees allowing ideas to emerge. To support the finding of the interviews, data was also gathered from the records kept by the Police and the Home Office. This methodological approach enabled triangulating qualitative and quantitative data, thus enhancing the validity and reliability of the findings.

Four Police Match day Commanders and three Club Safety Officers were approached through existing contacts. The decision over the number of people to interview was dictated by the time available and workload. Aid memoirs were designed to assist with interviewing. Safety officers were interviewed at their respective clubs and police officers at their police stations. Before commencing the interview, the need for the interview to be recorded was explained, and each interviewee was assured that direct quotes would not be attributed to individuals; informed consent was thus obtained. Authority was also requested, and granted, from a senior police officer to gather information from police sources. Each police operational planning office was contacted and it became apparent that any information required needed to be manually retrieved from paper files, stored at the stations. The United Kingdom Football Policing Unit (UKFPU) provided data relating to each match played.

The statistics on numbers of arrests and ejections, away fans and the risk category for each match was obtained from end of match reports submitted by the United Kingdom Football Policing Unit. It proved difficult to gather information on the number of officers deployed inside the stadia for each match. There were planned deployments inside the stadium for some officers whilst others were deployed after the match kicked off if there was a perceived threat of disorder during the match. This information was not generally recorded and had to be manually extracted from police match day files and central records.

The quantitative data was analysed to determine, whether the risk category set for each match had a discernable link to the number of persons arrested or ejected, whether the number of officers deployed inside the grounds led to an increase or decrease in the number of persons arrested, and whether there was a correlation between the number of away fans present and the number of arrests and ejections made.

Findings

On interviewing the Safety Officers and Police Match Commanders it soon became apparent that all clubs had actively participated in nationally recognised training schemes for their stewarding staff, investing time and money, in developing the match day stewards and supervisors. One Safety Officer stated that their club had invested

£100,000 in this training. This tentative finding is in contrast to O'Neill's (2005) experiences in Scotland, where there appeared to be little or no formal training. All the interviewees agreed that training had improved the quality of stewarding. One police officer suggested that the wages paid for stewarding attracted lower calibre stewards. However, his view was not shared by the other interviewees, who stated that stewarding was 'very good', 'excellent', 'very very good', and one officer suggested that stewarding was, sometimes of a higher level than some policing. Chalmers (2005) argued that as stewarding numbers increased and stewards became more experienced and confident, police numbers were reduced. There is evidence to support this suggestion; for example, some of Charlton Athletic matches had no police officers inside and on occasions, at very low risk games, no policing at all. Charlton's stewarding number had also increased from 20 in the early 1970s to currently around 450, of which fifty percent where employed directly by the club. All of the clubs in this study had stewarding numbers of between 400 and 600, and with the exception of Arsenal it was common for a proportion of stewarding to be provided by agencies.

Interviewees indicated that there was an excellent relationship at operational level between the police and the clubs; regular meetings took place before games when intelligence was exchanged and operational decisions were jointly made. At some clubs, police operational commanders regularly attended the stewards' briefings. The police officers who were interviewed particularly stressed how well they got on with the safety officer taking the lead within the stadium. This observation is again in contrast to O'Neill's (2005) experiences in Scotland, where the Police Match Commander still has ultimate control, although some respondents have suggested: that the relationship between the police officers and stewards working in the stadium was not always as strong as portrayed, that the police were not always as proactive as the stewards, that stewards were seen as over zealous at times, and that on occasions police and stewards were not supportive of each other.
It was also found that within the stadium, most of the required functions were carried out by stewards, with the police being present to support stewarding and deal with any serious disorder or crime. Respondents generally agreed that the initial response to an incident was carried out by stewards and they were responsible for ejecting supporters who breached the ground regulations or misbehaved. Policing concentrated on preventing disorder in the space between home and away fans.

All respondents felt that it would be feasible for matches to be held without police presence in the stadium. Charlton and Fulham had already held such games. Interestingly, all the three safety officers stated that it was reassuring to have police in the stadium to support stewarding; such presence provided 'comfort value' and 'comfort blanket'. Two police respondents felt that police were brought inside during a match to give them something to do, as

their main role was to police the arrival and dispersal of fans. It was even hinted that, as clubs only pay for officers deployed inside stadia, this was an opportunity to recoup some of the costs of the policing operation. At most grounds police officers concentrated on the area between the home and away fans leaving the stewards to manage the rest of the stadium.

In analysing police statistics and records, the police match grading scheme was adopted, where each match was graded according to police intelligence on whether there was likely to be disorder: low risk (category 'A'), medium risk (category 'B') or high risk (category 'C'). Of the 114 games looked at, 55 were classed as low risk, 43 as medium risk, and 16 as high risk (see Table 1).

Table 1
Classification of risk at matches

Club	Low risk (A)	Medium risk (B)	High risk (C)
Arsenal	11	4	4
Charlton	8	11	0
Chelsea	6	10	3
Fulham	9	10	0
Tottenham	12	2	5
West Ham	9	6	4
	55	43	16

A total of 4,459 police officers were deployed inside the six stadia during the season (114 matches). A noticeable difference was shown in the number of police officers deployed at each ground, with Charlton averaging the fewest officers (none for a category 'A' game and 12 for category 'B' game), while West Ham averaged the highest. Although on examination, this figure was distorted by a single match, where 186 officers were deployed compared to 79 or 80 for each of the other matches (see Table 2)

Table 2
Average Police Deployment per Game per Category

Club	Low risk (A)	Medium risk (B)	High risk (C)
Arsenal	32	56	79.5
Charlton	0	12	Not Applicable
Chelsea	24.5	25.2	49
Fulham	6.2	10.5	Not Applicable
Tottenham	40.9	52	103.4
West Ham	79.1	79.3	106.5

241,650 away supporters attended the 114 games that season, an average of 2,120 per game. 115 people were arrested and 733 ejected from the six grounds during the season, see Table 3.

Table 3
Number of arrests and ejections during the season

Club	Low risk (A)		Medium risk (B)		High risk (C)	
	Arrest	Ejection	Arrest	Ejection	Arrest	Ejection
Arsenal	10	131	7	70	8	127
Charlton	1	53	9	141	-	-
Chelsea	7	27	18	67	11	30
Fulham	2	10	6	25	-	-
Tottenham	16	22	1	1	1	24
West Ham	3	3	5	0	10	2
	39	246	46	304	30	183

No arrests were made at 45% of all the games (see Appendix A) compared with the national figure of 68% (Home Office, 2006), and there were one or less arrests at 73% of the matches, compared with the national statistics of 80%.

The Mode average arrest per game was zero for matches in categories 'A' and 'B', one for category 'C', and zero overall; and the Mean average of arrests per game was 0.71 for Category 'A', 1.07 for Category 'B', 1.88 for Category 'C', and 1.01 overall (see Appendix B)

There was no correlation between the number of officers deployed inside the stadia and the number of arrests made (see appendix B), or the number of away supporters and the number of arrests and ejections recorded (see Appendix C).

Conclusion

This exploratory study into the policing of six Premiership football grounds in London has revealed little to justify the deployment of large numbers of police officers within football stadia. An examination of the statistical data revealed no correlation between the number of officers employed and the number of arrests made or between the number of away fans and the number of arrests or ejections.

All safety officers and police match commanders interviewed greed that stewarding had improved with the introduction of the national training schemes. They also all agreed that stewards should be the first to respond to an incident within the stadium and should deal with all ejections.

Interestingly the police officers interviewed held the view that lowest category matches do not require policing. The driving force for police officers being deployed inside the stadium seemed to be, in part, due to the fact that the clubs did not pay for officers employed solely outside the ground, and in part, to give officers something to do during the game, as their main role was to ensure public safety and preserve order outside the ground before and after the match. As this exploratory study was carried out to a restricted timetable and with limited resources, further study is required and should include observations at matches and interviews with stewards and

lower ranked police officers, to gain a better and more reliable knowledge of the need for policing inside football stadia.

References

Beckley, A. (1997) "Who is liable? A police perspective". In: Frosdick, S. and Walley, L. (eds.) *Sport & safety management.* Oxford: Butterworth – Heinemann, pp. 56-67.

Bell, J. (2005) *Doing your research project: A guide for first-time researchers in education, health and social science,* 4th ed. Maidenhead: Open University Press.

Department of Culture, Media and Sport. (1997) *Guide to safety at sports grounds*, 4th ed. London: The Stationary Office.

Football Licensing Authority, et al. (2005) *Exemption for in-house football stewards from licensing under the private security industry act 2001* [online]. Available from http://www.flaweb.org.uk/docs/specsafe/nflapubs.php [Accessed 1 May 2007].

Frosdick, S. (1994) "New guidelines for stewarding. Stadium and Arena Management, 9–10". In Frosdick, S. and Chalmers, J. (2005) (eds.) *Safety and security at sports grounds.* Rothersthorpe: Paragon Publishing.

Frosdick, S. (2001) "Switch to safety"*. The groundsman.* **47** (7), 25 - 26.

Home Office (2006) *Press Release: Football related arrests fall for third year* [online]. Available from http://www.press.homeoffice.gov.uk/press-release/football-arrests-drop?version=1 [Accessed 4 January 2007].

Home Office (2006) *Statistics on football related arrests & banning orders: Season 2005-6* [online]. Available from http://www.homeoffice.gov.uk/documents/football-arrests-0506 [Accessed 22 April 2007].

Home Office (2006) *The good practice safety guide: for small and sporting events taking place on the highway, roads and public places.* London: Home Office.

O'Neill, M. (2005) *Policing football: Social interaction and negotiated disorder.* Basingstoke: Palgrave Macmillan.

Sir Norman Chester Centre for Football Research. (1989) *Crowd control and membership at football: A survey of police officers with responsibility for policing football matches in England and Wales*. Leicester: University of Leicester.

Stott, C. & Hoggett, J. (2006) *An analysis of the policing of domestic football in England and Wales: operational practice and crowd dynamics.* Liverpool: University of Liverpool School of Psychology.

30   Swetnam, D. (2000) *Writing your dissertation*, 3rd ed. Oxford: How To Books Ltd.

The Hillsborough Stadium Disaster (1989) Inquiry by Rt. Hon Lord Justice Taylor – Final Report (Taylor Report, 1990), HMSO.

UK SPORT (2005) *Staging major sports events: The guide* [online]. Available from http://www.uksport.gov.uk/pages/major_sports_event_the_guide/ [Accessed 20 April 2007].

Appendix A

Number of games for a set number of arrests inside a stadium

	Number of Games			
No. Arrests	A Category	B Category	C Category	Overall
0 Arrests	32 (58.18%)	16 (37.21%)	4 (25%)	52 (45.61%)
1 Arrest	14 (25.45%)	13 (30.23%)	5 (31.25%)	32 (28.07%)
2 Arrests	6 (10.91%)	10 (23.26%)	4 (25%)	20 (17.54%)
3 Arrests	0	3 (6.98%)	1 (6.25%)	4 (3.51%)
4 Arrests	2 (3.64%)	1 (2.33%)	0	3 (2.63%)
5 Arrests	1 (1.82%)	0	0	1 (0.88%)
6 Arrests	0	0	1 (6.25%)	1 (0.88%)
7 Arrests	0	0	0	0
8 Arrests	0	0	1 (6.25%)	1 (0.88%)
Total	55 (100%)	43 (100%)	16 (100%)	114 (100%)
Correlation	-0.77	-0.90	-0.78	-0.85

Number of games for a set number of ejections, from a stadium

	No of Games			
Ejections	Cat A	Cat B	Cat C	Overall
0	16	11	2	29
1	11	4	3	18
2	3	0	1	4
3	2	0	0	2
4	5	1	2	8
5	2	3	0	5
6	2	3	0	5
7	2	5	0	7
8	2	3	2	7
9	0	2	0	2
10	1	1	1	3
11	0	2	0	2
12	2	0	0	2
13	1	0	1	2
14	3	2	1	6
15	1	2	0	3
17	0	2	0	2
20	1	0	0	1
27	1	0	0	1
28	0	1	1	2
34	0	1	1	2
55	0	0	1	1
Correlation	-0.48	-0.42	-0.15	-0.47

Appendix B

Correlation between Officers Deployed Inside Stadium and Arrests per Category (Extract)

Police Inside	Arrests		Police Inside	Arrests		Police Inside	Arrests
32	0		12	0		121	0
32	0		12	0		93	0
32	0		12	0		68	0
32	0		12	0		142	0
0	0		12	0		56	1
0	0		12	0		49	1
0	0		21	0		93	1
0	0		7	0		80	1
0	0		7	0		80	1
0	0		7	0		80	2
0	0		14	0		102	2
21	0		7	0		49	2
21	0		14	0		80	2
0	0		60	0		80	3
0	0		80	0		186	6
0	0		79	0		49	8
14	0		56	1		1408	30
14	0		56	1			
…	…	…	…	…			
…	…	…	…	…			
			21	3			
…	…		56	4			
…	…		1293	46			
37	4						
37	5						
1758	39						

	Cat A	Cat B	Cat C	Overall
Correlation	0.10	0.06	0.07	0.21
Mode Ave	0.00	0.00	1.00	0.00
Mean Ave	0.71	1.07	1.88	1.01

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Crowd Management
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Average number of arrests per game Police inside the Ground

Police Inside	No of Games	Total No Arrests	Av. No. Arrests per Game
0	12	1	0.1
7	7	4	0.6
12	11	9	0.8
14	8	4	0.5
21	13	20	1.5
32	11	10	0.9
37	7	11	1.6
42	3	5	1.7
43	1	0	0.0
44	2	2	1.0
47	2	4	2.0
49	3	11	3.7
51	1	0	0.0
56	5	8	1.6
60	1	0	0.0
68	1	0	0.0
79	12	7	0.6
80	8	10	1.3
93	2	1	0.5
102	1	2	2.0
121	1	0	0.0
142	1	0	0.0
186	1	6	6.0
Correlation			0.39
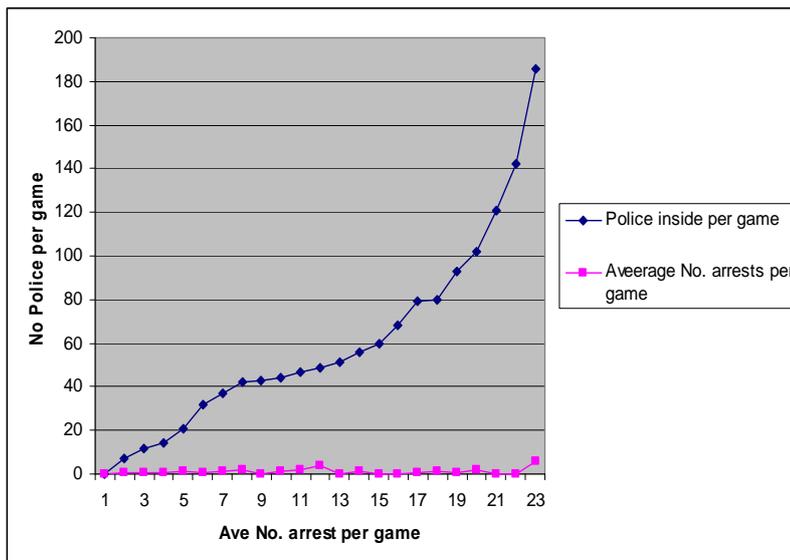
Appendix C

Correlation between number of visiting fans and number of ejections and arrests (Extract)

Visiting Fans	Ejections	Arrests
511	0	0
569	0	0
592	0	2
628	1	0
660	0	1
696	0	2
708	0	0
750	4	0
770	0	1
871	0	0
916	1	0
924	0	0
932	6	3
951	4	0
958	11	0
3137	6	2
…	…	…
…	…	…
3197	6	0
3203	7	0
3255	9	2
3335	9	1
3339	14	1
3339	7	2
3352	14	0
3371	15	2
3475	5	1
3566	0	1
3634	0	0
3635	0	0
3806	1	0
4139	1	0
4139	5	0
4500	5	2
5480	1	0
241650	733	115
Correlation	0.16	0.14

5 **INGRESS FLOW RATES: A STUDY OF EVENTS AT THE NEC ARENA**

GARY MASTERS
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Abstract

Although, the ingress phase is widely regarded as one of the higher risk elements of an event, knowledge concerning ingress flow rates is limited. This study looks at the ingress flow at eleven different events at the NEC arena, and the impact of: audience age profile, start time and support acts, and alcohol consumption, on ingress flow. A quantitative design approach was used to capture data on ingress flow. This exploratory study shows that the peak ingress flow rates achieved at these events varied greatly. The start time of the main artiste clearly had a major bearing on ingress rate. There was some indication that alcohol spend was higher where the audience profile was younger. There was no evidence that the audience age profile had any bearing on ingress flow. All these tentative findings require further research to understand more fully the factors influencing ingress flow at events.

Introduction

Available guidance concerning ingress flow rates, the rate at which visitors can be processed and admitted to a venue, is very limited. Yet the ingress phase of an event is widely regarded as one of the higher risk elements of an event. This is supported by historical records concerning crowd safety disasters which indicate the loss of 34 lives over the last 30 years during the ingress phase of events (BCUC 2006).

The NEC Arena has been operating successfully for many years, experiencing few ingress related problems. Whilst current arrangements clearly work, research has never been undertaken to identify the flow rates being achieved.

Beside ticket checking, other factors which may impact ingress flow rates include: rate and time of arrival and bag or body searches. As all target events had similar search requirements, this factor did not influence the data captured for this study. The impact of higher search requirement on peak flow rate thus remains an area for further research.

There is conflicting information concerning ingress flow rates in widely used published guides. The guide to safety at sports grounds, also known as the green guide (DCMS, 1977), identifies a maximum turnstile ingress rate of 660 people per hour. A comparative study of crowd behaviour at two major events suggests achievable rates of 1200 per hour (Kemp, Hill & Upton, 2004). The latter is based on an estimate using single file flow rates stipulated in a Home Office (1990) 'guide to fire precautions in existing places of entertainment and like premises', also known as the 'yellow guide'. The guide actually suggests 2400 people per hour through a unit width of 525mm, but this figure was halved by Kemp et al to allow for ticket checks and searches.

Audience profiles are used to categorise the type of people expected to attend a particular event, and to plan various aspects of the event including: stewarding and security staffing numbers, the number and type of catering units required, the number of car parks needed and the level of medical provision. An Audience profile is generally made up of a combination of factors, however, most relevant profile factors for genre or event type classification are age and gender. The importance of establishing and planning for the expected audience profile is thus seen as extremely important (HSE, 2000).

This study looks into whether the audience profile of a particular event influences ingress flow rates, arrival at the venue, alcohol consumption and need for medical attention. Previous research suggests that genre and audience profile can influence the level of spend on alcohol (White, 2001). Furthermore, a University of Illinois study (year) into 300 medical incidents at outdoor concerts in Chicago, found that 48% of those being treated had taken alcohol or drugs. Alcohol was the most common substance used by concert spectators and was documented in 36% of all patients (Reuters, 2007). This study explores this relationship at the NEC Arena.

Study Method

Capturing data on ingress flow rates lends itself to a quantitative design approach. This allowed a focused collection of large quantities of data, over a sustained period time. Data was captured from eleven concerts taking place at the NEC Arena between November 2006 and February 2007 (see table below).

Concert	Date
Pink	29-Nov-2006
Pussycat Dolls	30-Nov-2006
Iron Maiden	12-Dec-2006
Tenacious	15-Dec-2006
Kasabian	14-Dec-2006
Rock With Laughter	22-Dec-2006
Rock With Laughter 2	23-Dec-2006
Nelly Furtado	20-Feb-2007
Keane	23-Feb-2007
X Factor	25-Feb-2007
X Factor 2	26-Feb-2007

In capturing the data, stewards were deployed at each of the three main entry points to the Arena. They were provided with hand tally counters to count the number of people entering the venue at each point. At fifteen-minute intervals the control room operator contacted the entry point and requested a tally counter reading.
These readings were recorded by the control room operator on an Excel spreadsheet created for this purpose.

The number of entry lanes in operation at each entry point was also recorded to establish an average lane reading.

The same spreadsheet is used to input data from all the other concerts so that comparative analysis can be accomplished accurately and more productively.

The following data was also obtained for each event from venue departments and teams: pre-event evaluation of expected audience profile and type of artiste and performance, statistical data concerning total spend on alcohol, number of cars parked, number of people who required medical attention, and final ticket sales numbers.
In the Nelly Furtado concert, the venue was also trying a new bar code ticket scanning system, which provided the opportunity of comparison with the data captured by stewards using hand tally counters.

Access to data was facilitated by existing contacts at the Arenas. The ethics which guided this study centred on obtaining informed consent. The project was discussed with senior managers of key business areas and they agreed to supply the required information. It was agreed that information of commercially sensitive nature would not be widely published, and that copies of the final report provided to the venue.

Findings

Ingress Flow Rates
As expected ingress rates differed by event. The data captured by the hand tally counters enabled the calculation of average ingress flow rates, per lane, per fifteen-minutes and per hour. The highest ingress flow rate achieved was an average 932 per hour, per lane during the period of 1830 hours and 1930hrs at the 'Rock with Laughter' Concert on 23 December 2006. The green guide (DCMS, 1997) suggests that the ingress flow rate per turnstile should be set at a maximum of 660 people per hour.
The average peak flow rate achieved over the eleven concerts was 742 people per hour, per lane. This figure would have been higher if it was not for the low visitor numbers attending Nelly Furtado's concert. The ingress flow figures of 932 and 742 are lower than both The Home Office (1990) guide of 2400 people and Kemp et al's (2004) figure of 1200 but higher than green guide of 660 people.
Increased searching requirements would slow the rate down closer to the green guide rate of 660 people per hour, while the deployment of additional staff at ingress lanes, might increase the rate towards Kemp's et al.'s (2004) 1200 figure. Evidently further research is required.

Audience Profile
At the outset, it was decided that the issue of gender was not relevant to this research; however, age was given a prime consideration. However, correlation analysis shows no association between the age profile of the audience and the peak rates achieved, and no

association between the type of band, artiste or music and flow rates. This suggests that the ingress flow rate is largely influenced by the venue's ingress and admission processes, and that rates of passage are determined by the efficiency and constraints of these processes.

Start Time and Support Acts
What the analysis also indicates is that other factors may have influenced the achievable rates. The start time of certain events is an important factor, particularly when there is no support act and the main artiste is on stage at the beginning of the event. This study indicates that the two highest flow rates were achieved on high attendance shows where both had early main act start time and no support act. The following graph (Figure 1) shows the phasing of audience admission, for 'Rock with Laughter' event where there was no support act, and the show started much earlier in the evening. As such the ingress is achieved over a much shorter period as shown by the steeper curve and much earlier tail off.
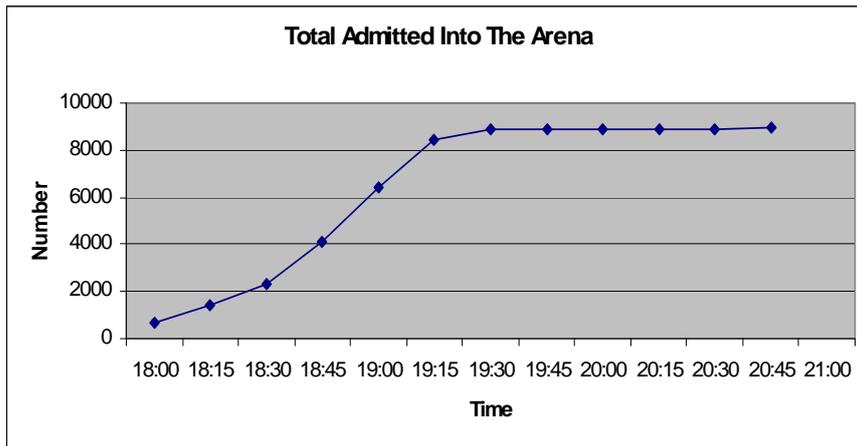
Figure 1 Rock with Laughter

Where there is a support act, some people may not be interested in the act and do not tend to arrive early, spreading the ingress over a longer period. This is demonstrated by the graph in Figure 2 for the 'Pink' show where there was a support act and the main artiste was not on stage until much later. Here, the graph is less steep and the tail-off is much later than that of 'Rock with Laughter', indicating that the number of people admitted into the arena was spread over a longer ingress period.
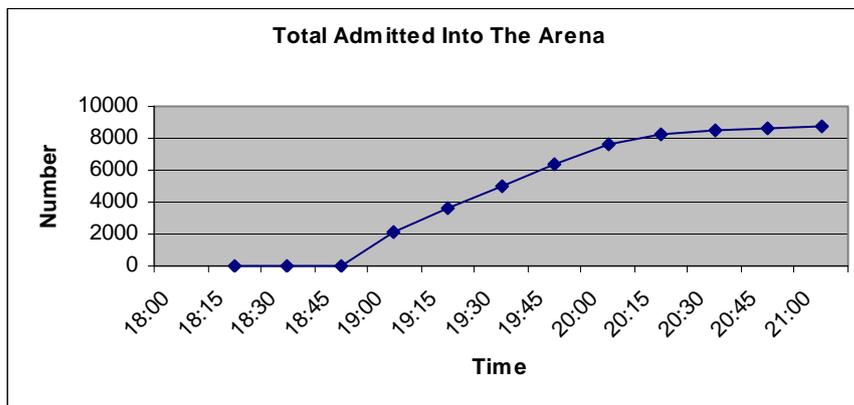

Figure 2 Pink

Data Capture Accuracy

The accuracy of the data capture using the hand held tally counters has become a concern. During the 'Nelly Furtado' event a new ticket scanning system was tested, providing the opportunity to compare data accuracy. Whilst some inaccuracy was anticipated, significant discrepancies were detected between the hand held tally counters and the ticket scanning system, which would clearly impact the resulting flow rates. These discrepancies may be attributed to a number of causes, all of which require further research, such as: inaccurate data capture or data input, timing, delay in taking readings or inaccuracy of over clicking.

It should also be noted that the total admission figures from the data

captured for the ingress will differ from the final figures provided by the box office. This is because early admissions are permitted into the bar, self-service restaurant and hospitality dining area. These numbers were not recorded.

Alcohol Consumption
Using the total attendance figures for each show supplied by the box office, an average spend per head was calculated and examined for links to audience age profile or event genre. Analysis of the data shows only a slight bias toward a younger audience drinking more alcohol; three of the top five highest spends per head, occurred when the majority of the audience was under 25 years of age (at 'Pink', 'Nelly Furtado' and 'Pussycat Dolls'). It should be noted, however, that both 'Pink' and 'Pussycat Dolls' respectively had 30% and 40% of the audience under 21 and 10% under 16 years of age; and Pussycat dolls a further 10% under 10 years. This clearly influenced spend per head as alcohol sales are restricted to over 18's only. 'X factor' also had a large percentage of under 18's, and reflected in the level of spend per head. As a result, it was not possible to establish a definite link between the age profile of the audience and the level of spend per head, or the type of event and the level of spend per head. Further research is therefore required which will have to exclude the under 18 years of age.

In contrast, the link between artiste genre and the level of spend per head on alcohol was stronger. The two highest spends per head were experienced at indie / guitar concerts and the next two highest spends were at traditional rock type concerts. This finding seems to support White's (2001) report which identified that rock concert goers drank more alcohol than attendees at other concerts (indie / guitar bands are a modern form of rock).

<div align="center">

Conclusion

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The peak ingress flow rates achieved at these differing events varied greatly. The start time of the main artiste clearly had a major bearing on the arrival and ingress rate achieved. It is not evident from this research that the audience age profile has any bearing over the ingress flow rates.
The maximum flow rates per lane, 932 and 742 (average) people, at peak are significantly higher than the 660 people per lane of the green guide and lower than Kemp et al's (2004) 1200. The method used for capturing the ingress flow rates may have led to some inaccuracies. In hindsight a more concentrated approach with stewards capturing data from a single entry lane, would have been preferable to the approach applied during this research, where a single steward was covering up to three lanes. At peak in a busy environment this might have affected accuracy.
The research concerning the alcohol spend per head in relation to audience profile, did not provide any conclusive outcome.

Whilst there was some indication that the level of spend appeared to be higher where the audience profile was younger, this would require further research to capture the age of individuals attending the event in order to discount those under the age of 18.

The research also did not find any direct relationship between the level of alcohol spend per head and the number of people attending the medical centre for treatment. Again further research may provide useful information in this area. Capturing the specific reason for attending and then clustering them by category is essential. These categories can then be compared with the alcohol spend, age and type of event. This may provide more direct relationships or correlations.

References

BCUC. (2006) Crowd safety by design module, unit 5.
The concepts and categories of risk [online] BCUC. Available from:
http://blackboard.bcuc.ac.uk/webapps/portal/frameset.jsp?tab=
courses&url=/bin/common/course.pl?course_id=_122619_1
[Accessed16 February 2007].

DCMS. (1997) *Guide to safety at sports grounds*.4th ed. Norwich:
HMSO.

DCMS. (1997) *Guide to safety at sports grounds*.4th ed. Norwich:
HMSO.

HSE. (1999) *The event safety guide: a guide to health, safety and welfare at music and similar events*. 2nd ed. Norwich: HMSO.

HSE. (2000) *Managing crowds safely.* 2nd ed. Norwich: HMSO.

Kemp, C. Hill, I. and Upton, M. (2004) *A comparative study of crowd behaviour at two major music events*. Cambridge: Entertainment Technology Press.

Reuters (2007) *Drugs, alcohol and injury at rock concerts*. [online]
Available from: http://www.personalmd.com/news/a1996070104.shtml
[Accessed 8 May 2007].

Robson, C. (2002) *Real world research*. 2nd ed. Oxford: Blackwell
White, L. (2001) *The relationship between alcohol consumption and the type of music*. [online] Available from:
http://clearinghouse.missouriwestern.edu/manuscripts/253.asp
[Accessed 8 May 2007].