

# STATION SAFETY UNDER THE MICROSCOPE

Professor Chris Kemp and Craig Stenning reveal measures that can be taken to keep commuters safe

**W**hen people are seen to run away from danger it is often perceived that they are doing so in a panic, especially on the crowded concourse or platform of a railway station. From much of the research into this area it is clear that panic in such situations is rarely seen. What is experienced is an instinctive move to either preserve one's own life or to move to a place of safety in the most direct way. Thus people are moving with purpose and direction and not in panic.

In adverse conditions, it is clear that those moving in such a way are more likely to slow down to help others to ensure that the collective is safe rather than just

shouted warnings and began running. This caused an evacuation, with station users running for their lives via any route available. This reaction was normal given the circumstances and the high security alert level at the time. One must also take into consideration the drilling into the public consciousness of the "Run, Hide, Tell" and "See it, Say it Sorted" mantras and thus the reaction of the crowd was in line with police and customer understanding and expectations in such a situation.

However, the very nature of this type of reaction should not be considered as panic. As already mentioned, the behaviours shown were akin to both fight or flight and in many cases the warning of fellow human beings who were, or could be, in potential and/or imminent danger.

## HOW CAN BARRIERS BE IMPROVED TO REDUCE THE RISK OF FALLS DURING QUICK EGRESS?

running off headlong towards safety themselves. Much work on this area has been carried out using major incidents as a basis to create research to prove that this is the case (Drury, Stott, Cocking, Kemp and Still). This collective deliverance is inextricably linked to the norms and values of our culture and society. Many commentators speak about the survival of the fittest and identify that in some tribal cultures and especially in the animal kingdom this is a normal survival instinct. However, in civilised society, the compassion of people and the need to help others survive is intrinsic to our behavioural systems.

On Tuesday 29 August 2017, London Euston station (the United Kingdom's sixth busiest) was evacuated at 19:49. A smoking bag was thrown into the busy concourse and nearby customers understandably believed this to be a terrorist attack and immediately

### STAYING FOCUSED

Videos of the recent Oxford Street incident showed people running with purpose from the location to a place of safety. Many passers by reported that it was blind panic. However, after watching videos of the incident it is clear that they are not panicking and know exactly what they are doing in moving away from the incident to a place of safety. This backs up the theory that few people panic in such situations.

For some caught up in the Euston incident, this meant simply leaving via the nearest station exit; others, however, chose a more drastic course of action, deciding to cross the tracks (train running had already been suspended), which included the live 750-volt DC third rail lines on platforms eight and nine. Some station users, in the midst of all the chaos tripped over the tensor barriers designed to form orderly queuing systems outside retail outlets and ticket offices and also used to marshal customers in a range of pre-ordained directions. Lastly, almost all of those exiting the station left their belongings on the concourse, which included, suitcases, bags and shopping. The natural course of an ordered world collapsing into the disordered. However,



**A holistic approach is required to provide a safe, secure and resilient environment**

what is clear is that the very structures that are used to help us to create order have to be abandoned in an emergency and can become an encumbrance in the movement away from a place of danger to a place of safety.

The station took just 3.5 minutes to evacuate and the staff response in the face of such adversity must be commended. However, during the evacuation, a number of issues were noted, which through further analysis may support our learnings related to such incidents. Fortunately, this was not a terrorist attack; but was caused by an e-cigarette stowed in a bag malfunctioning, causing smoke to fill the bag.

This type of issue highlights a number of uncertainties related to busy transport hubs, shopping centres and events, which all have diverse crowd profiles.

- For transport hubs and in particular train stations; how do we manage restricted access to the tracks, which firstly have the potential to be live operational tracks with 100s of tonnes of metal moving albeit at slow speed but with the significant potential to maim and kill? Secondly these areas house 750-volt

DC third rails, which if stepped on can cause catastrophic results.

- In areas where tensor or other similar type barriers are used to manage queues, how can these be improved or quickly removed to reduce the risk of slips, trips and falls during quick egress? Tensor barriers are used because they are flexible and easy to move, however, in a crisis – where the timeframe shrinks and there is very little time to remove obstacles – they can add to the problem rather than solving it.
- Another issue identified during the incident was that of luggage repatriation and how this process can be managed during a crisis. Of course, there are the obvious risks associated with the planting of secondary devices, which can put both the staff and public at risk during such post incident activities. There are kits available that are able to identify trace elements of explosives, but these are only useful if a terrorist has been careless enough to leave trace elements of explosives on the exterior of the package and there are also the remarkable sniffer dogs.

Identified overleaf is just a small number of the risks that must be considered when planning for an incident where large numbers of left items may be in the vicinity and ensuring that the luggage repatriation process is well thought through.

### MANAGING THEFT

In our multi-layered society, there is also the issue of theft and persons making false luggage claims. How is this managed? How do staff ensure that the item is repatriated to the rightful owner? These elements all need to be carefully managed. This process could be carried out by painstakingly running through CCTV footage, the use of baggage tags or other time-consuming methods, but what is the most expedient solution to the problem?

In conclusion, the objective is to return the crowded space to a business as usual state, which is critical to reduce economic losses, however, the safety of both internal and external customers is paramount. There is, of course, a tight balance between safety and profit in such a situation, which needs to be considered. Making the wrong decision could be catastrophic for either safety or the business in question. What measures do we need to take to ensure that the areas in crisis are safe, the

luggage is repatriated and the passengers are able to continue on their journeys as quickly as possible?

Firstly, profit must become a secondary concern, the creation of a business continuity strategy taking all eventualities into account is essential and this must include both hostile reconnaissance countermeasures and physical and psychological strategies to ensure that a holistic process is utilised to provide a safe,

## THE STRUCTURES USED TO CREATE ORDER IN AN EMERGENCY CAN BECOME AN ENCUMBRANCE

secure and resilient environment. However, to do this a comprehensive planning and risk framework must be created by both rail and non-rail specialists to ensure that both the known and unknown possibilities have been researched. This would result in a plan fit for all eventualities. Our memories are short and hindsight is a great attribute, however, until we have tested our plans for all eventualities we will never be ready for those unknown aspects, which continually thwart even the best prepared plans and teams ●

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