# Public Safety in Numbers Analysis of Operational Risks, Compliance, and Liability in Public Spaces

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Let's protect everyone

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**The Black Box Mandate** 

From Compliance to Excellence

A bold new movement

### Introduction

Every week, millions of people pass through the UK's stadiums, arenas, transport hubs, retail complexes, campuses, and community events. Behind the scenes, safety and security teams are tasked with an immense responsibility: preventing harm, responding to crises, and safeguarding public trust. Yet despite the stakes, the operational infrastructure supporting these responsibilities is often outdated, fragmented, or unfit for today's demands.

This report, Public Safety in Numbers, examines the risks and rising pressures, some known, some hidden, facing public space operators. This report will explore:

- Operational risks: More than 60% of UK venues and events still rely primarily on analogue systems such as radios, spreadsheets, and manual logs to coordinate safety-critical operations. These tools may feel familiar, but they leave dangerous gaps in accountability and evidence.
- Compliance challenges: The Terrorism
   (Protection of Premises) Act 2025 (Martyn's
   Law) introduces new requirements for
   preparedness and incident accountability.
   Venues and events that cannot demonstrate
   audit-ready records of their responses by 2027
   face exposure to penalties, reputational
   damage, and litigation.
- Financial liability: The UK pays over £2.7 billion annually in public liability claims, with potential negligence payouts ranging from £16,770 to £1,000,000+.2 High-profile public inquiries, such as the Manchester Arena Inquiry, have shown how the inability to demonstrate operational clarity compounds both costs and reputational fallout.



At the heart of these challenges lies a critical truth:

The biggest risk isn't the incident itself. It's not. knowing what really happened afterwards.

This paper draws on industry research, legal and financial data, and expert perspectives to provide a comprehensive view of public safety operations today.

The UK pays over £2.7 billion annually in public liability claims

£2.7bn

## 1 A Decade of Change

## 1.1 The Threat Landscape: What's Changed

Ten years ago, public safety threats were dominated by high-profile terrorist plots. Today, the landscape is far more complex. From unpredictable lone actors to mass crowd disorder, drones to climate stress, and social media-fuelled flash events, risk has become more unpredictable, diverse, and harder to contain. Understanding these shifting tides is the first step toward building resilience.

## Terrorism: fewer large conspiracies, more unpredictable, low-sophistication threats.

UK government assessments describe a threat that is "unrelenting and evolving," with nine declared attacks since 2018 and 39 late-stage plots disrupted between 2017 and 2023. Islamist extremism remains the largest share of the threat, with extreme right-wing terrorism a growing portion of caseloads. This volatility makes detection and preparedness harder for venues and city operators.

#### Crowd disorder and spontaneous massing events.

Beyond terrorism, large-scale disorder has stressed stadium and transport operations. The UEFA Euro 2020 final at Wembley (July 2021) <sup>4</sup> saw over 2,000 ticketless intrusions and 17 mass breaches, a situation that an independent review concluded "could have led to fatalities"— a stark warning about crowd dynamics, ingress control and stewarding models under mass crowd pressure.

#### Airspace and perimeter risks: drones/UAS.

Consumer drones have introduced a new operational risk profile. The Gatwick Airport drone incident (Dec 2018)<sup>5</sup> shut the UK's second-busiest airport, disrupting 100,000+ passengers and costing the airport £1.4million — illustrating how low-cost tech can cause outsized disruption and reputational harm to transport hubs.

## Climate and health stressors on venues and networks.

The UK's 2022 heatwaves brought 2,985 excess deaths and significant transport disruption (rail slowdowns, runway closures), raising new planning requirements for crowd hydration, shelter, and medical escalation during extreme heat events at stadia, festivals and campuses.

#### Social media as a risk multiplier.

Rapid mobilisation via platforms has produced sudden crowd surges, such as the Oxford Street disorder (Aug 2023), forcing operators to plan for flash events, misinformation and real-time narrative management.



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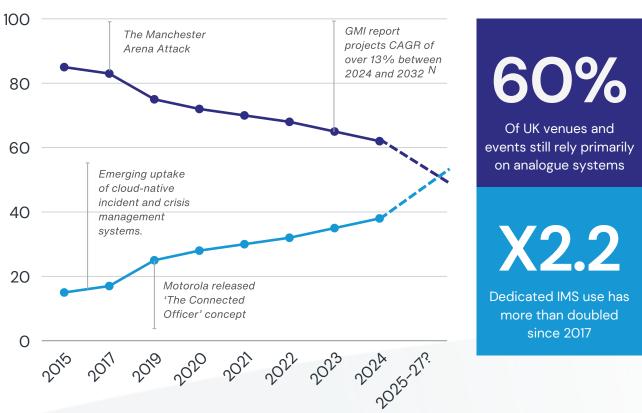
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#### 1.2 The Response Landscape: How Operators Have Adapted

As the threats facing public spaces have shifted, so too has the way operators respond. Over the past decade, regulation, technology, and process reforms have begun to reshape the landscape — though not always evenly, and not always quickly enough.

Despite advances in digital systems, public safety management remains stubbornly analogue. A 2024 Heald survey estimated that over 60% of UK venues and events still rely primarily on radios, spreadsheets, or manual logging systems to coordinate safety operations. <sup>8</sup> These tools are familiar and low-cost—but they were never designed to provide audit-ready, integrated incident records.

#### Estimated IMS Adoption vs Analogue Reliance (UK, 2015–2025)



By contrast, digital incident management systems (IMS) have seen slow but steady uptake over the past decade, largely driven by compliance pressure and insurance requirements. Yet adoption remains fragmented. Preparedness is higher *but uneven*.

Many large venues and hubs have made significant advances in threat assessments, training, and layered security technologies, aligning with incoming legislative expectations and JESIP doctrine. Yet capability gaps persist in mid-sized venues, festivals and community events: fragmented comms, manual logs, and limited post-incident audit trails remain commonplace, leaving decision-making hard to reconstruct when it matters most. The result is an uneven landscape where preparedness varies dramatically by size, budget, and leadership attitude.

## 1.3 When "good enough" is no longer good enough

There is a widespread confidence among operators that their current processes are "good enough." Radios connect staff, spreadsheets capture logs, and incidents usually resolve without catastrophic outcomes. But this confidence may be misplaced.

When asked about their ability to capture data and withstand scrutiny, organisations are often confident. In Halo's pre-demo questionnaire, 70–80% of security and operations leaders rate their confidence above 3 out of 5 when asked if their logs could hold up under the evidentiary standards of a legal proceeding.

But when the next question digs deeper—
"Describe your control room operations setup
and current challenges" — the confidence
quickly unravels. Many describe a familiar
picture: radios and paper logs, spreadsheets
passed between shifts, whiteboards crammed
with incident notes, or critical data scattered
across multiple digital systems which don't
integrate. Nearly all admit to the same
frustrations: difficulty ensuring accuracy,
patchy audit trails, and the impossibility of
building a complete timeline after the fact.

This gap between perception and reality is striking. On one hand, operators believe their processes are defensible. On the other, their own descriptions reveal the fragility of analogue methods under scrutiny. And history tells us that when the stakes are highest — in public inquiries, inquests, or legal claims — it is the paper trail that collapses first.

Confidence does not equal capability. In public safety, misplaced confidence carries a very real cost. As we will explore in the next chapter, the financial, reputational, and legal consequences of "not knowing" — or not being able to prove what you knew and when — are significant. From billion-pound liability claims to the public loss of trust, the inability to demonstrate clarity can turn even a well-handled incident into a crisis.



70-80% of security and operations leaders rate their confidence above 3 out of 5 <sup>10</sup>

## 2 The Cost of 'Not Knowing'

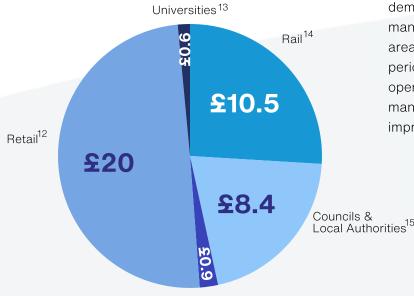
#### 2.1 The Financial Cost

Every year in the UK, organisations collectively pay more than £2.7 billion in public liability claims — a figure reported by the Association of British Insurers (ABI). While not all of this relates to public safety incidents, the portion attributed to slips, trips, falls, and large-scale safety failures is significant, and claim numbers are increasing.

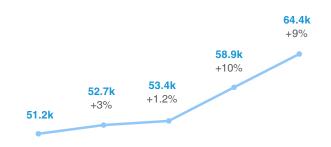
For operators of stadia, arenas, campuses, and transport hubs, these are familiar risks — often arising from preventable breakdowns in oversight or coordination. But the cost of such oversight can quickly become a nightmare.

The average settlement in negligence claims ranges between £16,770 and £1 million+, in catastrophic cases, the numbers can spiral. The Buncefield oil depot disaster in 2005, for example, led to damages in excess of £1 billion, with liability disputes lasting years.  $^{11}$ 

## Estimated Public Liability Payouts by Sector, 2024, UK (£millions)



Festivals 16



2020-21 2021-22 2022-23 2023-24- 2024-25

#### Public Liability Cases Registered Each Year, UK (2020-2024 FY) <sup>17</sup>

#### Retail Insight: Small Falls, Big Costs

In retail, it's not always the dramatic emergencies that cost the most. Slips, trips and falls alone account for around 40% of all public liability claims in the UK, making them the single largest source of injury-related payouts. Combined with petty theft and minor incidents, these everyday hazards drive the majority of liability costs in the retail sector, which are estimated at £20–30 million annually.

Maintaining a detailed, tamper-proof log of operational activity provides clear records of cleaning schedules, maintenance checks, patrols, and loss-prevention measures. Such records can demonstrate that reasonable steps were taken to manage risk and help identify patterns, including areas prone to spills, recurring theft locations, or periods of higher incident frequency. Accurate operational logs can support everyday liability management and provide data to inform improvements in processes and risk mitigation.

#### 2.2 The Inquiry Burden

When serious incidents occur, financial payouts are only one part of the story. The other is the cost of public inquiries.

Major inquiries in the UK regularly run into tens of millions of pounds. The Manchester Arena Inquiry, which concluded in 2023, spanned three volumes and years of testimony, cross-examination, and evidence gathering. Its findings have shaped national legislation, but the reputational cost to those involved — from operators to public agencies — has been profound.

The absence of clear evidence is often a decisive factor. Where operators cannot provide a transparent and auditable timeline of decisions, communications, and actions, inquiries have little choice but to conclude systemic failings. This often leads to harsher attribution of blame and longer-lasting reputational damage. The takeaway is clear: When the record is patchy, the accountability gap grows wider.

#### 2.3 Reputational Damage

Money and inquiries are only part of the cost equation. The harder price to quantify is trust.

The Manchester Arena bombing remains an instructive case. Beyond compensation and inquiry costs, it has left years of reputational damage across multiple organisations: venue operators, policing bodies, and security contractors. Survivors and families have consistently cited a lack of accountability as a root of their distrust.



Sports stadia have faced similar cycles. Safety failures, whether related to crowd control or emergency planning, tend to generate negative headlines that echo long after the incident itself. For operators who trade on public confidence, reputational damage can impact ticket sales, partnerships, and long-term brand identity. Data reinforces this point.

According to the Edelman Trust Barometer, 63% of people say trust in institutions is built on accountability and transparency.<sup>18</sup> In other words, the ability to demonstrate a clear, documented response to an incident is not just a legal safeguard — it is a reputational lifeline.

63%

of people say trust in institutions is built on accountability and transparency

#### 2.4 Insurance & Risk

A less visible but increasingly significant consequence of poor auditability lies in insurance and risk financing. Insurers are raising their expectations. Where once a policy payout depended on basic incident reporting, now underwriters are looking for evidence-based accountability: incident logs, decision timelines, and digital proof that protocols were followed.

Operators without these detailed and data-backed records are finding that claims take longer to settle, exclusions are applied more aggressively, and premiums climb higher year on year. In some cases, venues risk being deemed uninsurable for certain high-exposure events without demonstrable compliance.

For operators already navigating tight budgets, rising insurance costs compound the financial strain — and once again, the common factor is the absence of a reliable evidentiary record.



## Case Study: Croydon Tram Crash (2016) 19

#### **Background**

On 9th November 2016, a tram derailed at Sandilands Junction in Croydon while travelling at nearly three times the speed limit. Seven people were killed and 62 injured. Investigators later revealed that operator fatigue, poor signage, and a lack of systemic controls all contributed to the crash. Most critically, there was no auditable system in place to identify, log, or mitigate the risk of overspeed on the sharp curve—even though the hazard was foreseeable.

#### **Audit and Risk Failures**

The Rail Accident Investigation Branch (RAIB) found that:

- Risk assessments were inadequate and failed to anticipate the overspeed scenario.
- There was no continuous monitoring data or automated logging that could have flagged operational anomalies in advance.
- Safety warnings raised by staff and unions in prior years were poorly documented and not escalated into action plans.
- The absence of a logged data, auditable decision-making, and preventative triggers meant there was no clear accountability trail.

#### **The Fallout**

The Office of Rail and Road (ORR) prosecuted both Transport for London (TfL) and Tram Operations Limited (TOL):

- TfL fined £10 million
- TOL fined £4 million

The judge condemned the failure to act on foreseeable risks as "disturbing complacency" and "an accident waiting to happen." Beyond fines, the case dragged reputations into the spotlight for years and prompted stricter oversight of operational logging and fatigue management across the UK's light rail sector.

## **3** The Black Box Mandate

## 3.1 Accountability Under the Microscope

The previous chapters have shown how the threat landscape has grown more complex and the costs of failure more severe. We've also seen how many operators continue to rely on analogue methods and fragmented systems — radio calls without logs, spreadsheets without context, paper notebooks that can't be verified.

The result is that when a crisis hits, organisations find themselves without a complete and auditable record of events. Investigators, insurers, and regulators are forced to piece together timelines from scattered fragments — a process that often amplifies reputational and financial damage.

This is the gap the operational 'black box' is designed to close. Like its counterpart in aviation, it creates a single, verifiable source of truth: every decision, every communication, every log captured in one place, with time-stamped accuracy.

## 3.2 Building Resilience When It Matters Most

The benefits of a black box are clear, and the stakes are rising. As shown in Chapter 2, the UK already faces £2.7bn in annual public liability claims, with inquiries and investigations dragging organisations into years of costly scrutiny. In these situations, the difference between resilience and ruin often comes down to what can be proved.

A black box provides operators with:

- Accountability verifiable, defensible audit trails that demonstrate decisions were reasonable and compliant.
- Resilience faster recovery and smoother coordination, reducing downtime after incidents.
- Evidence documentation that supports insurance claims, compliance audits, and public inquiries.
- Learning the ability to analyse incidents and drive continuous operational improvements.

In short, it transforms fragmented responses into coordinated action, and uncertainty into defensibility.

#### The 'Black Box' checklist

To be effective, such a system must go beyond simple logging. It needs:

- Live communications and centralised tasking to align teams under pressure.
- An untamperable, time- and user-stamped log that can withstand legal and regulatory scrutiny.
- Easy-pull reports and analytics that turn raw activity into actionable insight.
- Integrated modules that unify risk, incident, and compliance processes into a single source of truth.

Without these capabilities, an IMS cannot meet the evidentiary and operational standard now expected of venues, events, campuses, and transport hubs.



#### 3.3 The Mandate for Change

The last decade has seen a rising tide of complex threats, from terrorism to severe weather, from cultural shifts in crowd behaviour to the pressure of public accountability, and the response to this changing landscape simply hasn't been fast enough. It's time to catch up. It's time to join The Black Box Mandate.

It is not a passive tick-box exercise, but a movement — a demand for higher standards in public safety. It is a call for operators, managers, and leaders to leave behind fragmented processes and embrace a unified record of truth. Because when the unthinkable happens, "good enough" is no longer enough.

This call places responsibility squarely where it belongs: in the hands of those entrusted with public safety. To choose analogue over auditability is to choose uncertainty. To rely on scattered notes and radio chatter is to accept preventable risk. But to adopt a black box approach is to lead — to protect not only your organisation but the people who trust you every day with their lives and wellbeing.

Your people, your public, your brand, you.

This is the moment to set a new standard. A standard where accountability is built in, resilience is proven, evidence is irrefutable, and learning is continuous. Aviation embraced the black box decades ago, transforming its safety record beyond recognition. Now, public spaces face the same crossroads.

+67%

Halo Customers report a 67% increase in audit trail confidence after implementing Halo <sup>10</sup>

£8,500/year

Saved on average by Halo Customers through automated reporting and system consolidation <sup>10</sup>

## **Conclusion: From Compliance to Excellence**

This report has shown how the public safety landscape has shifted — threats are more complex, liabilities more costly, and scrutiny more relentless. It also shows that too many organisations continue to rely on fragmented or analogue methods that cannot withstand today's evidentiary or operational demands.

To meet this moment, leaders must move from a reactive mindset — one that scrambles to defend actions after the fact — to a proactive culture of operational excellence. This means not only preparing for the worst but continuously learning from the everyday. It means embedding systems and practices that capture the data, provide the evidence, and drive the insights to make tomorrow safer than today.

The economics of public safety make this imperative. Unsafe universities lose students. Unsafe transport hubs lose passengers. Unsafe festivals and stadia lose attendees, revenue, and trust. But organisations that can prove safety, demonstrate transparency, and learn from data don't just avoid loss — they unlock growth. A safer experience is also a more profitable one: people stay longer, spend more, and return again.

Here lies the heart of the Black Box Mandate: You cannot improve what you do not record. The operators achieving real gains — in resilience, reputation, and revenue — are those harnessing digital IMS systems to deliver data-driven, evidence-based safety management. They are not waiting for the next inquiry, the next headline, or the next fine to force change. They are leading from the front, saving time, money, and lives.

The responsibility now lies with you. Will you wait for the test to come, or will you put in place the systems and culture that prove you are ready today? Move beyond compliance to a culture of excellence where public safety is not just a box to tick, but the standard you set.



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## Stay Ahead of the Curve

The Black Box Mandate is here. Get ahead of the curve and see what impact this could have on your venue with our free incident management analysis tool



Scan to take



