

# Understanding Crowd Behaviours:

A Guide for Readers



**UNIVERSITY OF LEEDS**

**ELPC**  
EMERGENCY PLANNING COLLEGE



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([www.cabinetoffice.gov.uk/ukresilience](http://www.cabinetoffice.gov.uk/ukresilience))

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# **A Guide for Readers**

# A Guide for Readers

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- Four separate, but inter-related, reports comprise the “*Understanding Crowd Behaviours*” report series.
  - **Understanding Crowd Behaviours: Guidance and Lessons Identified**
  - **Understanding Crowd Behaviours: Supporting Evidence**
  - **Understanding Crowd Behaviours: Simulation Tools**
  - **Understanding Crowd Behaviours: Supporting Documentation**
  
- For completeness, each report begins with the Executive Summary for the whole report series.
  - This provides a summary of the overall Research Aims, Methodology, Key Messages, Good Practice Guidelines, Lessons Identified and Recommendations for Further Research.
  - **Anyone with a professional interest in crowd behaviours should read the Executive Summary.**
  
- The aim of this guide is to help readers navigate through the four reports, by outlining the contents of each, and suggesting which reports might be of most interest and use to different kinds of reader.

# **Understanding Crowd Behaviours: Guidance and Lessons Identified**

# Understanding Crowd Behaviours: Guidance and Lessons Identified

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**You should read this report if you are involved practically in the field of crowd events.**

- This is the practical report, which provides a comprehensive set of good practice guidelines for crowd events and management, and for emergency situations and evacuations.
- It also provides a comprehensive set of good practice guidelines for simulating crowd behaviours, as a useful tool to aid event preparation.
- This report should be of specific interest to all those involved in the field of crowd events – e.g., event planners and managers, emergency services, and local authorities.
- The lessons identified from the in-depth literature reviews and expert interviews are also detailed. This allows the reader to understand the origins of the good practice guidelines.
- Finally, this report also suggests directions for future research, so that practice may be improved.

# **Understanding Crowd Behaviours: Supporting Evidence**



# Understanding Crowd Behaviours: Supporting Evidence

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You should read this report if you are: -

- **Involved practically in the field of crowd events, particularly with preparations for very large scale, multi-day, multi-site crowd events.**
- **Interested in the literature behind the good practice guidelines for crowd management, emergency situations and evacuations, and crowd simulation techniques.**
- **Interested in understanding crowd events and management from the perspective of experts in the field.**

**We would recommend reading this report as a supplement to “Understanding Crowd Behaviours: Guidance and Lessons Identified”, in order to better appreciate the derivation of the guidelines.**

## Part 1

- This part of the report is specifically concerned with additional issues and risks which are likely to arise in the preparation for, and management of, the crowds which will be attracted to very large scale events, which take place over multiple days and across multiple sites.
- It should be of particular interest to all those involved with preparing for, and managing, very large scale, multi-day, multi-site crowd events.

## Part 2

- This part of the report describes the problematic opening of Terminal 5 at Heathrow Airport on 27<sup>th</sup> March 2008, as an example of how crowd events can turn into PR disasters if not prepared for, and managed, appropriately.
- It should be of particular interest to all those involved with preparing for and managing crowd events.
- It specifically highlights the way in which seemingly minor issues can – when occurring in combination – have a significant impact on event success.

## Part 3

- This part of the report reviews the literature concerned with crowds, their behaviour (in both normal and emergency situations), psychological theories used to explain their behaviour (in both normal and emergency situations), and differing methods which can be used to simulate their behaviour.
- It also discusses the lessons to be identified from relevant crowd disasters.
- This section is particularly applicable to those who wish to understand the theoretical underpinnings of the good practice guidelines.
- An assessment of apparent gaps in the current research literature is also provided, which may be of specific interest to those involved in undertaking and funding crowd research, and to those interested in developing new knowledge in this area.

## Part 4

- This part of the report details the key findings of the 27 semi-structured interviews conducted with experts (both practitioners and academics), specifically in relation to crowds, their behaviour and the most appropriate ways of preparing for and managing crowd events.
- It will be of interest to those wishing to learn more about crowd events – particularly concerning best practice advice and lessons identified – from the perspective of experienced individuals directly involved with crowds.
- It should also be of interest to those who want to understand the origins of the good practice guidelines.

# **Understanding Crowd Behaviours: Simulation Tools**

# Understanding Crowd Behaviours: Simulation Tools

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**You should read this report if you are interested or involved in – or wish to become involved in – the simulation of crowd behaviours to aid event preparation.**

- This report contains a detailed review of three of the leading agent-based simulation tools currently available, along with an assessment of the ways in which we feel future simulation tools should be developed.
- It is particularly relevant to those already involved with simulating crowd behaviours, or those who are looking to use simulation tools to assist with event preparation.
- It may also be of interest to those who wish to understand the thinking behind the good practice guidelines for crowd simulation techniques.

# **Understanding Crowd Behaviours: Supporting Documentation**

# Understanding Crowd Behaviours: Supporting Documentation

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**You should read this report if you are interested in the sources of the literature underpinning the guidance and lessons identified, or if you want to learn more about the different methods used to gather information for the reports.**

- This report contains a list of the references cited in the text, detailing the original sources of the literature reviewed and enabling individuals to read those aspects of the literature in which they are most interested.
- This report also describes the research methods undertaken, and the schedules used for the interviews with experts.
- This should be particularly relevant to individuals involved with researching crowd behaviours.
- It should also be of interest to anyone who wishes to learn more about the research process involved with producing these reports.

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