

### SPATIAL ANALYSIS CHISH



#### Geo-Information for Disaster Management

A GIS-Based Spatial Decision Support System (SDSS) for Emergency Services: London's King's Cross St. Pancras Underground Station

#### Overview

- Background
  - Research partners
- Introduction
  - Research Context => Preparedness
- Project Outline
  - Why?
  - Research Focus & Direction
  - How...
- Centre for Advanced Spatial Analysis
- Discussion



#### Research Partners

Centre for Advanced Spatial Analysis (CASA, a research centre within UCL)





Project Partners (so far): LUL, Metronet, ARUP Fire, ESRI

 $E \cdot S \cdot R \cdot C$ 

King's Cross Spatial Advisory Panel

BTP, LBC, HPA,, LCRSP, LAS, LFB, LUL, Met Police, NR, TfL.

22/03/2005



**Research Sponsors** 

Research Grant



GI4DM

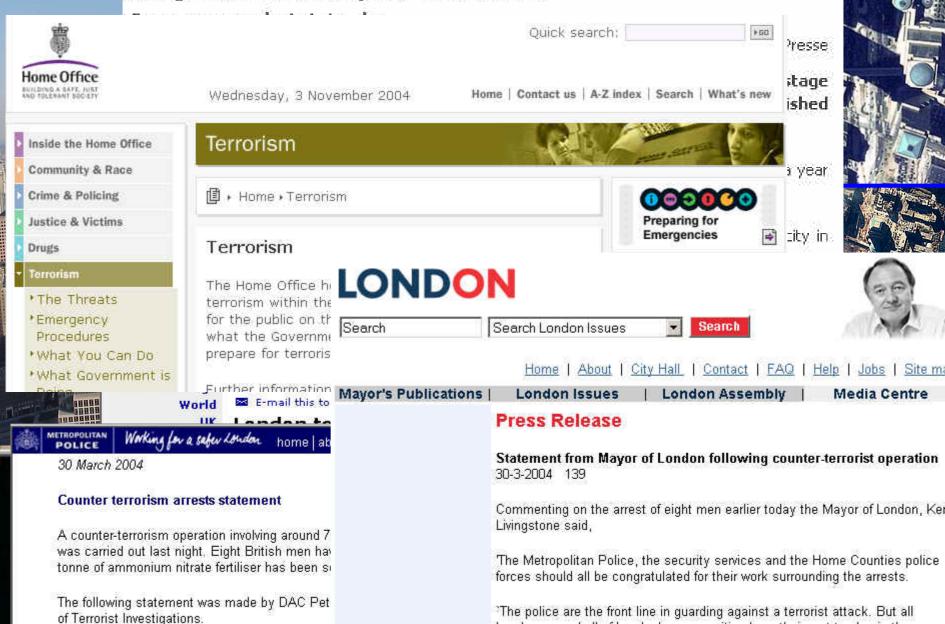
**Christian Castle** 

#### Introduction

- Preparedness
  - Threat is real!
- Civil Contingency Act 2004
  - Part 1: Local arrangements for civil protection
- NHS Emergency Services
  - Essential component of community preparedness
  - Potential weak link
- Results from recent exercises
  - Communications, Decontamination, Equipment



#### Al-Qaeda London plot 'inevitable'



Magazine

Madrid which left 200 dead.



#### Introduction

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  - Weak links
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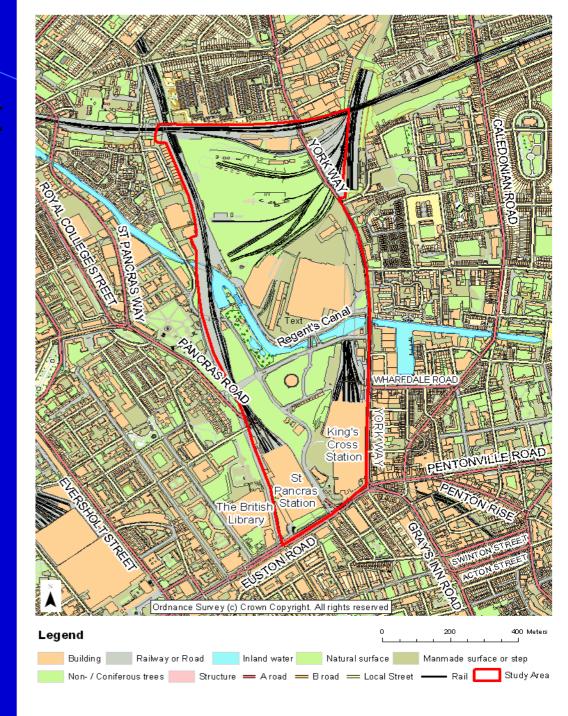
### **Project Outline**

- Why?
  - 1987 fire of King's Cross St. Pancras underground station
  - Short time = Significant Changes in disaster environment
- Research Goals & Outcomes
  - Contribute to emergency services preparedness
  - How many patients ...?
  - Benefactors of anticipated outcomes
- How...



### King's Cross Redevelopment

- Study Area
- 1) London Underground
- 2) Channel Tunnel Rail Link
- 3) King's Cross Central



## King's Cross Redevelopment



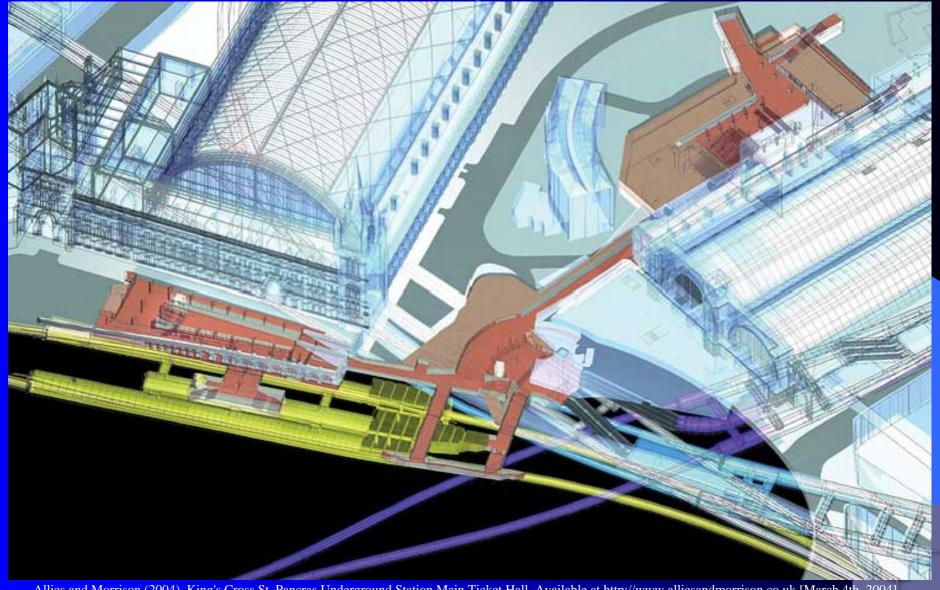
Camden Council (2004)

CASA

### King's Cross Channel Tunnel Rail Link



## King's Cross Underground



## King's Cross Central



### Centre for Advanced Spatial Analysis

- CASA's Research Interests
  - Nottinghill Carnival
  - Virtual London
- Current State of KXSDSSES
  - Advisory Panel
  - LUL: 2 & 3D station drawings
    - KX Fly Through
  - Pedestrian simulation programs
  - Network Analysis and Route Optimisation

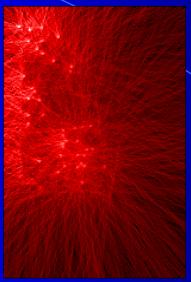


# Notting hill Carnival



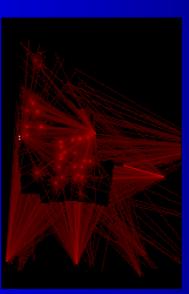
# Notting hill Carnival













Batty, M., Desyllas, J. and Duxbury, E. (2003), 'Safety in Numbers? Modelling Crowds and Designing Control for the Notting Hill Carnival', <u>Urban Studies</u>, 40 (8): 1573-1590.

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KX SDSS

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KX SDSS

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#### Discussion

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