

Hazard/threat category	Sub-category
Transport accidents	Aviation accident over major conurbation
Hazard and threat description, plus scale	Risk reference number
Causing up to 600 fatalities and up to 300 casualties. Loss of amenities including housing, retail or industrial facilities and subsequent impact on the economy	H16
Date of revision	Next review
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Version	2
Author	TVP

1. Overview of hazard or threat

An incident of this scale has never occurred in the United Kingdom and only one in the rest of the world as a direct result of terrorist action. However the results of one would be catastrophic with the impacts lasting for months if not years.

2. Key historical evidence

The only incident of this scale ever having occurred anywhere in the world is as follows:-

- **11th September 2001 – New York**

Two Boeing 767 aircraft on internal flights in the United States are hijacked by terrorists and flown into the side of the twin towers of the World Trade Centre in New York shortly before 9.00am local time. All 157 persons on both planes are killed. A short while later both towers suffer a catastrophic failure of their structural integrity. They collapse killing most of the occupants and members of the rescue services attending to deal with the initial incidents. In all nearly 3000 people are killed

There is no direct historical evidence in respect of the United Kingdom but the following incident could have resulted in an incident of this scale.

- **21st December 1988 – Lockerbie**

A bomb exploded on Pan Am flight 103. It had left Heathrow bound for New York. At 9.45pm it suddenly disappeared from radar screens. The town of Lockerbie (pop 3000) took the brunt of the crash, 11 residents and all 259 on board killed

As stated earlier the above incidents were terrorist related however the possibility of one occurring by accident cannot be discounted as illustrated by official figures which show that there are, on average 36 Risk Category A and B 'Airprox' incidents with UK airspace each year.(2000 - 2004)

Category A

Risk of Collision (average 10.2 incidents per year)

Category B

Safety Not Assured (average 25.8 incidents per year)

A significant proportion of the above (30 -40%) occurred either immediately adjacent to, or above TVP airspace. (UK Airprox Board, Report Number 12, January 2004 - June 2004, Page 6)

3. Likelihood

A repeat of the events on 9/11 is extremely unlikely but cannot be totally ruled out. However given the increasing size of aircraft and the increase in traffic in the immediate future an incident of this scale as a result of non terrorist related is conceivably possible.

Hazard	Outcome description	Likelihood
Aviation accident over major conurbation	Causing up to 600 fatalities and up to 300 casualties. Loss of amenities including housing, retail or industrial facilities and subsequent impact on the economy	Rare (2)

4. Impact

Summary

The effect of such an incident would be catastrophic for the area/conurbation involved and will require a national response in this country. The effects will last for several years if not decades

Hazard	Outcome description	Impact			
		Health	Social	Env	Econ
Aviation accident over major conurbation	Causing up to 6800 fatalities and up to 300 casualties. Loss of amenities including housing, retail or industrial facilities and subsequent impact on the economy	5	5	5	5

Details

Impacts
Primary
Emergency services for the area would be totally overwhelmed and require significant national support.
Major damage to property and surrounding land
Closure of roads, bridges, railway lines

Loss of (and possible damage to) telephone, electricity, gas and water supplies
Health risks from damaged chemical stores, fuel storage tanks etc.
Possible serious environmental contamination of land, surface water and/or groundwater from fuel and cargo
Evacuation and temporary/long-term accommodation needs
Hospital services would be severely disrupted and again require a nationally co-ordinated response
Severe disruption to business both retail and industrial due to the damage and/or displacement of community (including staff)
Massive disruption to Local Authority business which will require national support
Substantial temporary mortuary/body storage facilities required
Secondary
Need for recovery strategy in aftermath of crash
Disruption of economic life and major costs of rebuilding infrastructure
Public need for information, advice, benefits/emergency payments
Insurance implications, including help for the uninsured
Safety assessments/possible demolition of damaged buildings and structures
Shortage/overstretch of key resources (equipment and personnel) and agencies
Overstretch of normal communication links, including mobile phones
Failure of community to return leading to long term displacement issues
Loss of financial infrastructure to community due to relocation of businesses who may not be able to wait for recovery process to impact
Loss of industry and business due to financial impact
Long term health issues
Possible impact to surface and/or groundwater which may affect abstractions used for industry, agriculture and potable supply
Long term environmental impacts

5. Vulnerability and resilience

The Thames Valley area is more vulnerable than some other areas because of its proximity to major airports (Heathrow & Luton). That level of vulnerability is increased due to density of national/international air corridor's/navigation beacons and approach/landing holding areas over Thames Valley (Beacons/stacks located at Bovingdon, Olney, Westcot, Henlow, White Waltham and Hampstead Norris).

No area in the country – including London - could manage an incident of this scale without significant support on a national basis.

All responders have well tried and tested plans and protocols for obtaining support and mutual aid from around the country which would be implemented for such an incident.

6. Overall assessment

Category	Sub-category		
Transport accidents	Aviation accident over major conurbation		
Outcome description	Impact	Likelihood	Risk
Causing up to 600 fatalities and up to 300 casualties. Loss of amenities including housing, retail or industrial facilities and subsequent impact on the economy	5	2	High

Controls in place

- Draft Mass Fatalities Plan
- Berkshire Multi agency Heathrow plan
- Multi agency training and exercising
- Royal Berkshire Hospital NHS Trust Major Incident Plan
- Heatherwood and Wexham Park Hospital NHS Trust Major Incident Plan
- Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals
- Berkshire Healthcare Trust Major Incident Plan
- Buckinghamshire Hospitals NHS Trust Major Incident Plan
- Milton Keynes Hospital NHS Trust Major Incident Plan
- Buckinghamshire Mental Health Trust Major Incident Plan
- Buckinghamshire Primary Care Organisations Major Incident Plan
- Oxford Radcliffe Hospitals NHS Trust Major Incident Plan
- Oxford Mental Health Trust Major Incident Plan
- Nuffield Orthopaedic Clinic Major Incident Plan
- Oxfordshire Primary Care Organisations Major Incident Plan
- South Central Strategic Health Authority Major Incident Plan
- Berkshire Integrated Emergency Planning Structure
- Wokingham District Council Emergency Plan
- Reading Borough Council Emergency Plan
- West Berkshire Council Emergency Plan
- Bracknell Forest Borough Council Emergency Plan
- Royal Borough Council of Windsor and Maidenhead Emergency Plan
- Slough Borough Council Emergency Plan
- Buckinghamshire County Council Emergency Plan.
- Aylesbury Vale District Council Emergency Plan.
- Chiltern District Council Emergency Plan.
- South Bucks District Council Emergency Plan.

- Wycombe District Council Emergency Plan.
- Environment Agency Incident Management Plans
- Environment Agency 24/7 incident response
- Environment Agency Memorandum of Understanding with Fire Brigades, Police, Local Authorities, Highways Agency, Health Protection Agency and Health Authority.
- South Central Ambulance Service NHS Trusts Major Incident Plan
- Milton Keynes Council Major Incident Guide
- Thames Valley Police Emergency Procedures Manual
- ACPO Emergency Procedures Manual
- Oxfordshire County Council Emergency Plan
- Royal Berkshire Fire & Rescue Service Major Incident Policy
- Oxfordshire Fire & Rescue Service Major Incident Policy
- Buckinghamshire Fire & Rescue Service Major Incident Policy

Additional risk treatment required

None identified