

| Hazard/threat category | Sub-category |
|--|------------------------------|
| Transport accidents | Aviation accident |
| Hazard and threat description, plus scale | Risk reference number |
| Causing up to 50 fatalities and up to 250 casualties | HL9 |
| Date of revision | Next review |
| November 2007 | November 2008 |
| Version | 2 |
| Author | TVP |

1. Overview of hazard or threat

Aviation accidents involving large numbers of casualties are thankfully relatively rare when measured against the number of flights worldwide. This is particularly so for the United Kingdom where one has to go back to the second half of the 1980's for the last major aviation accidents of this scale, the worst two of which were terrorist related. However when they do occur the potential for large numbers of fatalities and other casualties is high.

2. Key historical evidence

This has been restricted to incidents occurring in the United Kingdom only. They include terrorist related incidents which are not "accidents" in the true sense but which have the same result.

18th June 1972 – Staines

BEA Hawker Siddeley Trident 1C went into a stall and plunged to the ground, shortly after taking off in rainy weather from Heathrow Airport. All 112 passengers and 6 crew members died.

23rd June 1985 – Ireland

An Air India Boeing 747 carrying 329 persons dived into the ocean apparently after a bomb exploded aboard the aircraft. All on board killed

22nd August 1985 – Manchester International Airport

A Boeing 737 Jet liner carrying 137 persons, burst into flames and an engine caught fire, then exploded on the ground. 57 people killed, 15 seriously hurt & dozens, including fire-fighters, suffered lesser injuries.

21st December 1988 – Lockerbie

A bomb exploded on Pan Am flight 103. It had left Heathrow bound for New York. At 945pm 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

8th January 1989 – Kegworth (East Midlands Airport)

A British Midland Boeing 737-400 air Liner from Heathrow to Belfast crashed on the M1 in Leicestershire, whilst attempting an emergency landing at the East Midlands airport following an engine failure during take off. 47 people killed and 74 injured.

3. Likelihood

There has been no aviation accident involving large scale casualties in the United Kingdom for some 16 years although there have been several smaller aircraft incidents resulting in fatalities and one cargo Boeing 747 with 4 crew members killed near Stanstead on the 22nd December 1999. However the possibility of one occurring 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)

| Hazard | Outcome description | Likelihood |
|-------------------|--|------------|
| Aviation accident | Causing up to 50 fatalities and up to 250 casualties | Rare (2) |

4. Impact

Summary

Many of the impact factors in respect of aviation accidents are short term i.e. a few weeks however some especially those involving Health and Social aspects can last for many years

| Hazard | Outcome description | Impact | | | |
|-------------------|--|--------|--------|-----|------|
| | | Health | Social | Env | Econ |
| Aviation accident | Causing up to 50 fatalities and up to 250 casualties | 4 | 3 | 4 | 3 |

Details

| Impacts |
|---|
| Primary |
| Large scale deployment of the emergency services and other category one responders |
| Large number of cancellations of non emergency medical procedures at hospitals to facilitate the treatment of casualties from the incident. |

| |
|---|
| Depending on exact location significant disruption to the immediate locality in respect of air, road and possibly rail travel. |
| Possible serious environmental contamination of land, surface water and/or groundwater from fuel and cargo |
| Impact on local authority likely to be significant in respect of:- <ul style="list-style-type: none"> • Temporary mortuary facilities • Rest/assistance centre facilities |
| Secondary |
| Possible increase in crime and other policing related issues |
| Long term medical & social care for those affected by the incident |
| Possible impact to surface and/or groundwater which may affect abstractions used for industry, agriculture and potable supply |
| Long term environmental impacts |
| Financial implications for insurance companies, landowners etc |

5. Vulnerability and resilience

It is an accepted fact that most aviation accidents occur during take off or landings and as such Thames Valley's proximity to Heathrow and to a lesser degree Luton, makes the area more vulnerable to such incidents than other areas in the UK. 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).

There will be a significant increase in air traffic from both sites due to significant current and proposed expansion plans.

It is unlikely that any part of the Thames Valley area could stand alone in its response to such an incident. That said there are robust plans, protocols and agreements in respect of mutual aid throughout the emergency services and other category one responders.

6. Overall assessment

| Category | Sub-category | | |
|--|-------------------|------------|------|
| Transport accidents | Aviation accident | | |
| Outcome description | Impact | Likelihood | Risk |
| Causing up to 50 fatalities and up to 250 casualties | 4 | 2 | High |

Controls in place

- Draft Mass Fatalities Plan
- Multi agency training and exercising
- Royal Berkshire Hospital NHS Trust Major Incident Plan
- Heatherwood and Wexham Park Hospitals 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 Trust 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