Terrorism: Effects, Recovery, Prevention

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Case Studies: Terrorism

- Tokyo Sarin Gas Attacks 3/20/1995
- September 11th Attack on the U.S.
- Atocha Station Bombings in Madrid 3/11/2004
- London Underground Bombings 7/7/2005
Tokyo: The Setting

City:
- Densely populated
- Transit oriented
- Low crime

Aum:
Matsumoto incident
June 27, 1994
Botulin toxin attempts ’90, ’93
Monday, March 20, 1995

- 7:30 – 8:00 a.m.
- 5 men board 5 trains with sarin and umbrellas
- Each man releases sarin, meets getaway car
- 12 killed, 500 to 1000 hospitalized
Emergency Response

- Subway Authority kept trains running
- Hospitals turned victims away
- One hour of emergency calls before threat understood
Effects On Policy

Changes made
...in the U.S.

Japan not worried – Asahara caught, Aum Shinrikyo under heavy surveillance
September 11th: Background

- Hijacking: Not a new concept
- Hijacking was usually for Escape or Extortion
- Air Marshals:
  - 1987: ~400
  - 2001: 33
September 11th

- 19 Hijackers
- 4 Jetliners
- Small Weapons
- Airplanes to Guided Missiles
- Landmark Targets
- ~3000 Casualties, mostly civilians
Sept. 11th Aftermath

- Panic
- Economic Decline
- Flight Ban
- Increase in Security
Response to Sept. 11th

- Taliban in Afghanistan
- Pre-Emptive War
- Iraq?
  - Prevention
  - Liberation
  - Oil
- 4 years later, is Air Travel safer? Does it need to be?
March 11, 2004 – As Spaniards are gearing up for the Prime Ministerial election later in the week, ten bombs explode on four packed commuter trains at Madrid’s busiest station (Atocha) during morning rush hour.

- 191 killed, 1,500 wounded.
- Police carry out three “controlled” explosions.
The Blame Game

- Immediate response of Spanish government (Aznar) is to name ETA (Euskadi Ta Askatasuna) as culprits of attacks.
- About 75 people, mainly Moroccan nationals arrested, 23 remain in custody.
- Spain names an Islamist extremist group, the Moroccan Islamic Combatant Group as the main focus of the Madrid investigation.
- Attempted attack of the AVE followed on April 2nd, but was unsuccessful.
Spain’s Socialist Party wins a surprise victory in the country’s general election.

Party leader, Jose Luis Zapatero, who had previously condemned the war in Iraq now threatens to pull Spanish troops out of the country.

April, 2004 – All troops in Iraq are withdrawn.
Effects on Transportation Policy

- Shortly after the bombings, the EU created the post of counterterrorism coordinator to facilitate cooperation among European governments.
- Proposals:
  - Fingerprint and DNA database and biometric passports
  - Common arrest warrant
  - Make extradition of suspects easier
  - Increased use of cameras and security personnel
  - Higher rate of border trafficking (Spain)
Madrid: One Year Later

- Commuter rates holding steady.
- Few visible changes made in policy.
- Did terrorism prevail? Reaction versus prevention argument. Can it be stopped?
London: A Model for European Reaction?

- British Transport Police in conjunction with parliament examine rail security measures.
- Already strong foundations dealing with IRA extremists.
- High-profile policing
- Increased canine units
- CCTV
- Enhanced covert explosives test program
- Monitoring vehicles entering car parks
July 7th

- Series of coordinated bomb attacks carried out on London Underground and bus system. 52 deaths are tallied.
- Many disregard attacks as suicide related.
- Intelligence is slow to surface.
- Explosive devices are nearly identical to those used in Madrid.
- Within a week, four British citizens are identified as culprits.
- Links to Al Qaeda
- Jean Charles de Menezes (July 23)
The Madrid-London Connection

- Time of attacks: Elections and Olympics
- Purpose of Al-Qaeda
- Above-Below ground nodes.
 Transit Safety

Figure 4  Traffic Deaths and Transit Mileage, U.S. Cities (based on FTA data)³

Per capita traffic fatalities (including automobile occupants, transit occupants and pedestrians) tends to decline with increased transit ridership.
**Figure 2**  US Death Rate By Mode (BTS, Tables 2-1 and 2-4; APTA, 2003)

U.S. Transit passengers have about one-tenth the traffic fatality rate as automobile occupants.

**Figure 1**  UK Death Rate By Mode (Steer Davies Gleave, 2005, Table 7.3)

UK Transit passengers have about one-twentieth the traffic fatality rate as automobile occupants.
Reaction vs. Prevention
At what cost?

- Should policy focus on passenger safety or terrorism prevention?
- London: $1.4 billion lost by attack
- U.S. Stock prices plummeted $1.2 trillion immediately after 9/11
- U.S. -> 2% of funds allocated for transit security since 9/11 goes to ground transportation.
- U.S. spent $11 billion in 2002-03 on aviation security, $115 million in 2003-04 on public transportation
“Yes I love Technology!”

- What role can technology play in defending terrorism aimed at transportation systems?
- Ground transit vs. maritime/air safety
- Examples: chemical sensors, mandatory metal detectors, fingerprint screening vs. conventional methods?
Preventative Measures

- Seek out Terrorist cells worldwide
- Re-structure layout of cities (pedestrian friendly)
- Smaller, high-frequency forms of travel
- Rider Registration
- Safety vs. Freedom (e.g. Patriot Act)

- Should we prepare for terrorism, or merely react when it hits?
- Should emergency response distinguish between natural phenomena and terrorism?
- Are the transportation systems we have now acceptable for minimizing the effects of a terrorist attack?
- Which do you value more, passenger safety or protection from terrorism?