

Transportation Hubs

Airport Security - New Challenges

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DUBAI SKYLINE 10/01/2010

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Airport Security New Challenges

- Threat – Terrorist Groups
- New Challenges - Coordinated Attacks
- Risk – Transportation Hubs
- Vulnerability - Critical Infrastructure
- Communications networks - Overloaded
- Lack of Communications Between Airport Entities And Other Government Agencies.
- Lack of Trust in Governments To Protect Civilians.
- Shutdown of Transportation Center – Days to Weeks
- Loss Of Revenue for City As Well as Airlines, Hotels, Tourist Destinations
- City in Lockdown While Police and Security Agencies Located Escaped Terrorists or Supporters.



Terrorist Related Incidents



Date	Deaths	Injuries
1970s	244	180
1980s	657	303
1990s	1,049	7,757+
2000	38	44
2001	4,687	13,500+
2002	821	2,897+
2003	418	2,321+
2004	1,066	4,016+
2005	348	1,857+
2006	319	981
2007	~621	~1,730
2008	350+	362+
2009	58	87+
2010	673+	>1,794
2011	717+	1,757+
2012	788+	2,378+
2013	768+	1,839+
2014	2,120+	1,046+
2015	3,097+	3,383+
2016	1,326+	2,620+
Totals:	20,165+	50,852+

COORDINATED ATTACKS



- **Madrid Train Station Coordinated Attack**
- **First Responders Overwhelmed**
- **Hospitals Not Prepared for Casualties**
- **Police Response**
- **Shut Down the City**
- **Waiting for Further Explosions**

March 2004 Madrid, Spain

AIRPORT SUPPORT FACILITIES



- **Data Centers Located Near Explosion.**
- **Buildings Demolished Data Lost.**
- **30% of Heathrow Fuel Supply Provided by Facility.**
- **Airport Began Rationing of Aviation Fuel.**

**December 2005 Buncefield,
Hertfordshire, England**

COORDINATED ATTACKS ON TRANSPORTATION CENTERS



- Coordinated / Swarm Attack
- First Responders Overwhelmed
- Hospitals Not Prepared for Casualties
- Police Response
- Shut Down the City
- Waiting for Further Explosions
- Swarm Attack to overwhelm security and first responders.

November 2008 Mumbai, India

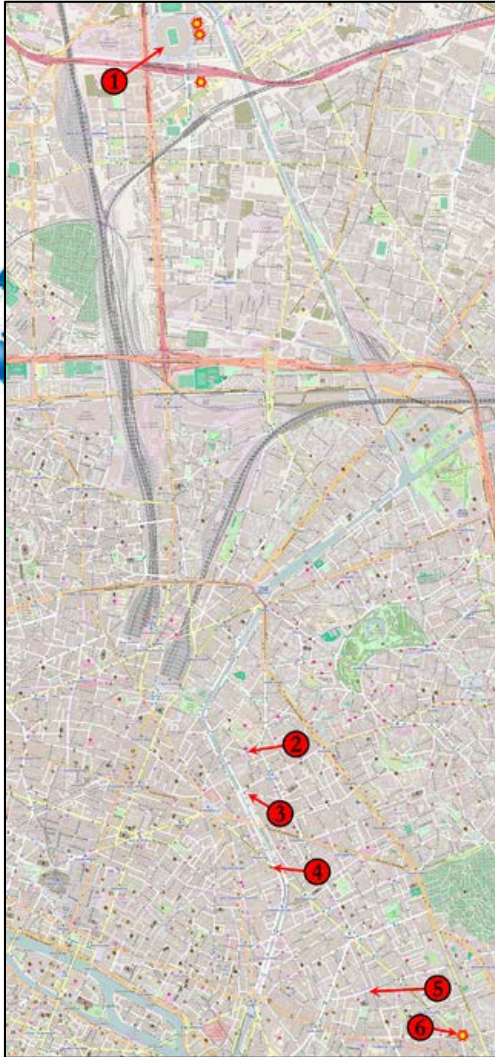
AIRLINE BOMBINGS



- **Bombing on Russian Airline Bound for St. Petersburg.**
- **224 Deaths, No Survivors**
- **Sharm Al Sheik Airport is 3rd Largest Egyptian Airport.**
- **All Air Carriers Suspended Operations From Airport Until Security Review**
- **Aircrew Complained of Aircraft Mechanical Problems**

October 2015 Sharm El Sheikh Airport, Egypt

COORDINATED ATTACKS



- Coordinated Attack
- 137 Killed, 368 Wounded.
- First Responders Overwhelmed
- Hospitals Not Prepared for Casualties
- Police Response
- Shut Down the City
- Waiting for Further Explosions

November 2015 Paris, France

COORDINATED ATTACKS



Afghan National Army soldiers keep watch after the airport attack.



A security guard stands guard at police station after clashes between police and Taliban in Kandahar [Allauddin Khan/AP]

- **Coordinated Attack on Terminal and Surrounding Area.**
- **11 Suicide Bombers and Terrorist Penetrated Airfield And Holed Up In A Converted School**
- **70+ Deaths, 35 Injured. 11 Terrorists**
- **Attack Was Coordinated After Message To Osama Posted On Taliban Website**

December 2015 Kandahar Airport, Afghanistan

AIRLINE BOMBINGS



- 20 Minutes after takeoff from Mogadishu, explosion detonated in Daalos Airlines, Airbus A321 opening a hole in the fuselage behind the R2 door.
- Crew turned the plane around and successfully performed an emergency landing at Mogadishu.
- 2 injuries and the body of the bomber were found on the ground in Somalia along the flight path.



**February 2016 Daalos Airlines Flight 159
Bomb, Mogadishu, Somalia - Djibouti**

TRANSPORTATION HUB ATTACKS



- Car bomb kills 6 people just outside the Mogadishu airport near a checkpoint at the entrance to the airport complex.
- Car bomb was targeting an UN convoy transiting the checkpoint.
- Explosives were remotely exploded in front of a tea shop just outside the airport near a checkpoint at the entrance to the airport complex.

**February 2016 Car Bomb Near Airport,
Mogadishu, Somalia**

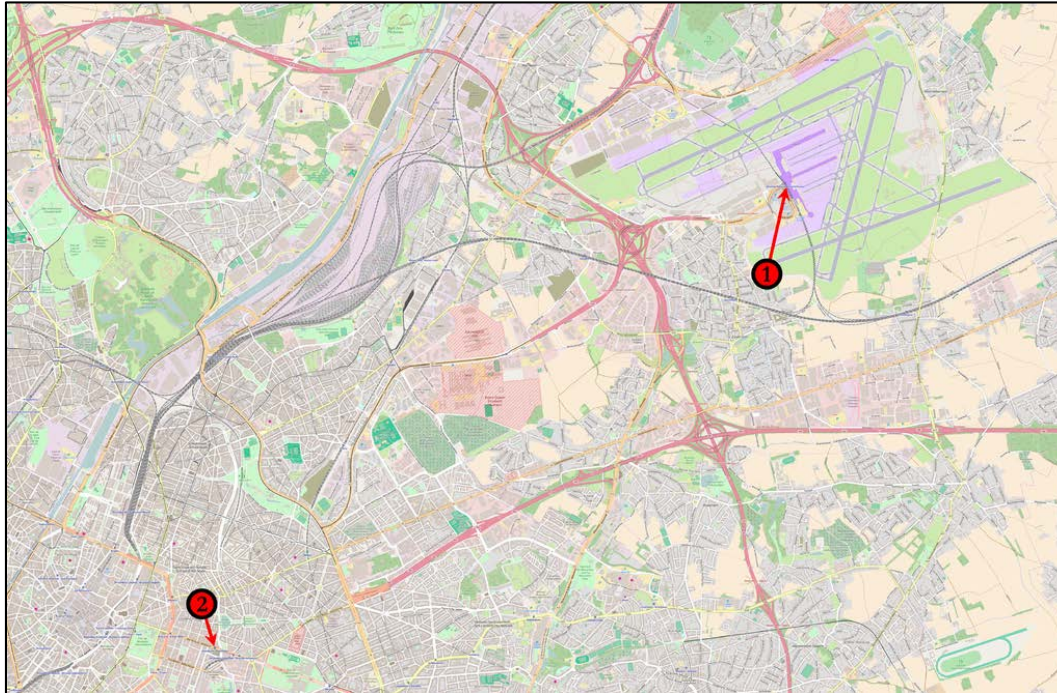
TRANSPORTATION HUB ATTACKS



- Laptop bomb explodes at an airport checkpoint in Beledweyne, Somalia. The Laptop bomb wounded 6 people .
- A laptop packed with explosives at the front gate of the airport, as the security officers were trying to inspect a car carrying the devices,
- The screening area is used to inspect cargo and baggage before entering into the airport complex and being put on planes.
- Two other devices were defused, one hidden in a printer.

March 2016 Laptop Bomb, Beledweyne Airport, Somalia

COORDINATED ATTACKS ON TRANSPORTATION CENTERS



- Coordinated Attack On Airport 07:58
Metro 09:11
- First Responders Communications Circuits Overwhelmed
- Hospitals Not Prepared for Casualties
- Police Response
- Shut Down the City
- Waiting for Further Explosions

March 2016 Brussels, Belgium

COORDINATED ATTACKS

Atatürk international airport

Three men entered the international arrivals area and opened fire before detonating suicide vests

Eyewitnesses say that at least one attacker was on the first floor, in check-in area



Guardian graphic

- **Coordinated Shooting and Suicide Bombing at Terminal 2.**
- **45 Deaths, 230 Injured.**
- **Hospitals Not Prepared for Casualties**
- **Police Response**
- **Shut Down the City**
- **Waiting for Further Explosions**

June 2016 Ataturk Airport, Turkey

Airport Security Solutions

- GSM Cell Towers Can Be Shut Down to prevent Terrorist from using them.
- Tracing of phone calls from suspect terrorist to other members.
- Use of CCTV with Video Analytics To Assist With Forensics
- Use of Face Recognition Software To Identify Suspects.
- Cooperation Between ICAO Signatories In Sharing Information Between Airports.
- Baggage Screening, for Contraband, Bombs, Chemical & Radiation,
- Deterrent Against Drones That Interrupt Aircraft, Microwave Bursts, Electronic Jamming, Anti-Drones With Nets, Birds Of Prey.
- Better Coordination And Communication Between Government Agencies.



Discussion & Questions



Thank You