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REGARDING

MASS TRANSIT SECURITY AFTER THE LONDON BOMBINGS

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Introduction

Good morning Chairwoman Rivera, Chairman Barrios and distinguished members of the Committee. Thank you for the opportunity to testify before you today to discuss mass transit security and the MBTA in the wake of the recent terrorist attacks in London.

For the record, I am Research Director of the Homeland Security Partnership Initiative and fellow at the Belfer Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government. Previously, I served as a professional staff member on the Select Committee on Homeland Security in the U.S. House of Representatives, where I was responsible for critical infrastructure issues including transportation security. In that capacity, I was the primary author of a comprehensive transit security bill, the Safe TRAINS Act introduced in the 108th Congress by Congresswoman Eleanor Holmes Norton and reintroduced in the 109th Congress as the Secure TRAINS Act. On the Committee, I authored a comprehensive report on mass-transit security, "America at Risk: Closing the Public Transportation Security Gap."

I have served as an International Affairs Fellow of the Council on Foreign Relations with an expertise on homeland security and counterterrorism issues. I am also privileged to serve as an associate member of the Markle Foundation Task Force on National Security in the Information Age and the Center for Strategic and International Studies/ Heritage Foundation Task Force Examining the Roles, Missions, and Organization of the Department of Homeland Security. The Markle Task Force has been instrumental in shaping national debate and policy on improving information sharing, while the CSIS/Heritage Task Force played an influential role in the recently announced restructuring of the Department of Homeland Security.

My written testimony today will focus on the vulnerability of public transportation generally and does not specifically address measures taken by the MBTA. Today's other witnesses are far more expert on the transit system that they so capably oversee. My comments are intended to provide context, advance the insights, and complement the testimony already provided by the previous witnesses.

Terrorism and Mass Transit Security, Recent History

According to the Congressional Research Service, fully one-third of terrorist attacks worldwide target transportation systems, and public transit is the most frequent transportation target.[1] Analysis of more than 22,000 terrorist incidents from 1968 through 2004[2] indicate that attacks on land-based transportation targets, including mass transit, have the highest casualty rates of any type of terrorist attack.[3] On average, attacks against such systems created more than two-and-a-half times the casualties per incident as attacks on aviation targets. In terms of fatalities, attacks on surface transportation are among the deadliest, ranking behind attacks on aviation and nearly equaling fatality rates of attacks on religious and tourist targets.[4]

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[1] Congressional Research Service, "Transit Security," memo to Homeland Security Committee Democratic staff, August 28, 2003.
[2] Author's analysis of Memorial Institute for the Prevention of Terrorism (MIPT), Terrorism Knowledge Base, July 2005.
[3] Defined as average number of injuries and fatalities per incident.
[4] Author's analysis of MIPT Terrorism Knowledge Base data, July 2005. Also see Brian, Michael Jenkins, "Terrorism and the Security of Public Transportation," testimony presented to the Senate Committee on the Judiciary, RAND Corporation, April 8, 2004.

Why is mass transit a favored target? Mass transit systems are "open," offer high concentrations of people, and provide the potential to cause large-scale disruption and fear. The systems are inherently difficult to secure because of the volume of riders, high number of access points with few obvious inspection and control areas, the need for convenience, and low-cost fares with no requirement of advance purchase or passenger identification. These characteristics make it impossible to secure public transportation systems in the same way that we have secured aviation since 9/11.

The most recent bombings in London are simply a reminder of the vulnerability of mass transit systems worldwide. The most notable attacks over the last decade provide insight into threats, tactics and vulnerabilities.

London, July 2005: On 7 July 2005, Islamist terrorists struck the London Underground and a bus with four bombs during the morning rush hour, targeting subway trains and buses. Fifty-two people were killed and 700 injured. The incident was the deadliest single act of terrorism in the United Kingdom since the 1988 bombing of Pan Am Flight 103, and it is the deadliest bombing in London since the Second World War. Responsibility for the bombings was claimed separately by The Secret Organization Group of Al Qaeda of Jihad Organization in Europe and later by the Abu Hafs al-Masri Brigade which claimed responsibility for the Madrid attacks in 2004.

The attacks marked the first suicide bombings in Western Europe, and were carried out by domestic terrorists affiliated with or inspired by Al Qaeda.

On 21 July 2005, a second series of four explosions took place on the London Underground and a London bus. However, this time only the detonators of the bombs exploded, all four bombs remained undetonated and there was only one injury and no fatalities.

Madrid, Spain March 2004. Ten bombs detonated in four locations on Madrid's train line by jihadist terrorists killed 191 and injured 1,460 others. The bombs were detonated by cell phones and were left in backpacks. The Abu Hafs al-Masri Brigade claimed responsibility on behalf of Al Qaeda. By the end of March 2004, authorities had arrested over twenty people in connection with the attack. The suspects hailed from Morocco, India, Syria and Spain.

Israel, 2000–present. In Israel, there have been more than 70 Palestinian bomb attacks since the current conflict erupted in September 2000. Roughly one-third of those attacks have been carried out by suicide bombers targeting buses, bus stops, and railway stations and resulting in hundreds of fatalities.

Tokyo, Japan March 1995. Japanese Buddhist extremist sect, Aum Shinri Kyo, attacked the Tokyo subway system with nerve gas, Sarin. The gas was released from packages brought on to five subway cars. Twelve people were killed and 6,000 injured. Passengers and personnel in fifteen subway stations were affected by the Sarin.

U.S. Vulnerability / Boston's MBTA

Although attacks similar to those in London, Madrid, Israel or Japan have yet to occur in the United States, the threat is real and chances of an attack succeeding are high. There are over 140,000 miles of train routes in the U.S. and more than 500 major urban transit operators. Americans take public transportation 32 million times a day, 16 times more than they travel on domestic airlines. The U.S. Department of Homeland Security (DHS), Department of Transportation (DOT), and the Federal Bureau of Investigation have warned public transportation

officials of possible terrorist strikes. Khalid Sheik Muhammed, one of Osama bin Laden's chief lieutenants, told his interrogators that Al Qaeda had plans to attack the metro system in Washington, D.C.[5]

Public transportation systems in the United States are vulnerable to attacks because of their inherent openness, their number and geographic dispersion, and the volume of passengers that they carry. But not all systems are equally at risk. Major urban systems with higher passenger loads are more likely targets. Of particular concern is the dense concentration of high-ridership systems, especially along the Northeast corridor between Washington, D.C. and Boston, Massachusetts.

Based on ridership, Boston's MBTA is the fifth largest mass transit system in the United States, behind New York, Chicago, Los Angeles, and Washington, D.C.[6] As such, Boston's MBTA was the 4th largest recipient of DHS security funding in the federal fiscal year 2003 and the 7th largest in fiscal year 2004.[7]

Making Public Transportation More Secure

After 9/11, federal, state and local authorities have taken a number of steps to improve public transportation security. At the end of 2002, 74% of U.S. public transit authorities had augmented security measures that were in place prior to 9/11, and 88% adopted new security measures.[8] Those already high numbers have certainly increased in light of the Madrid and London bombings.

Many of the steps taken to improve mass transit security are reasonably low-cost measures that any system can take. These include:

- Increase the visibility of staff and security measures
- Increase the frequency of security patrols
- Promote awareness, instilling a security mindset in staff and enlisting public vigilance
- Reduce obvious hiding places for bombs, such as trashcans
- Review and rehearse immediate response and evacuation plans for obvious threats, including suspicious packages, bombs, fires, and sudden outbreaks of illness
- Conduct a vulnerability assessment and review threat potential with local and federal officials
- Ensure adequacy of crisis management plans, awareness of plans, readiness of equipment, and accuracy of all contact information

Interviews conducted with a number of large transit authorities around the country after the Madrid bombings in 2004 indicate investments in a range of other measures that transit authorities would like to pursue, but where funding may pose obstacles:

- Cameras and other surveillance equipment

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[5] Gertz, Bill, "Terrorists Said to Seek Entry to U.S., via Mexico," *The Washington Times*, April 07, 2003, A1.
[6] Federal Transportation Administration, National Transit Database, 2003.
[7] Tom Yedinak, senior legislative representative, American Public transportation Association, telephone conversation, August 3, 2005.
[8] U. S. General Accounting Office, *Mass Transit: Federal Action Could Help Transit Agencies Address Security Challenges*, GAO-03-263, (Washington, D.C.: GAO, December 2002).

- Improved and interoperable communications systems
- Command and control systems and tools, and redundancy of such systems
- Increased training and exercises on prevention and emergency response, including decontamination
- Explosive and WMD detection and countermeasures, including expanded use of canine teams as well as new technologies
- Capital improvements to increase the physical security of stations, vehicles, bridges, and tunnels
- Capital improvements to improve passenger survivability in the event of an attack, including improvements in ventilation, drainage, fire safety, emergency communications, lighting, egress, and accessibility by emergency response personnel

Challenges and Prospects

No Silver Bullet. At the end of the day, there is no "silver bullet" to improve the security of public transportation. Even the best security measures on mass transit can not promise one hundred percent security. The preparedness, public awareness and extensive closed-circuit television systems that London put in place in response to a long history of IRA bombings could not prevent the attacks of July 2005. Even Israel, the most security conscious country in the world, can not prevent frequent deadly bus bombings. The fact that the London bombing represent the first suicide attacks in Western Europe suggest that deterrence and prevention may get even more difficult going forward.

Layered Defense. Successful transit security must have multiple layers that prepare, deter, detect, protect, and respond. While this poses a significant challenge of deciding which measures to prioritize, enhancements at any layer should seek to present obstacles to would-be terrorists, help limit damage and casualties should an attack occur, and be mutually reinforcing with other measures. Furthermore, the more that security enhancements are integrated with other basic objectives — preventing crime, dispatching and tracking vehicles, monitoring the condition of infrastructure and assuring safe operations[9] — the more transit operators will be able to meet their main objective: getting riders to and from their destinations quickly, cheaply, and safely.

Funding. Surveys and interviews by the General Accounting Office (GAO) of transit officials nationwide indicate that "insufficient funding is the most significant challenge in making their transit systems as safe and secure as possible."[10] In fact, survey respondents were more than 2.5 times more likely to cite insufficient funding as the main impediment to security relative to any other factors.[11]

After the Madrid bombings in 2004, staff of the House Select Committee on Homeland Security conducted similar interviews and surveys of officials at five large U.S. transit authorities that accounted for 15–20% of total annual U.S. passenger trips. This study confirmed the deep concerns about funding among transit authorities.

The Limits of Intelligence. President Bush has said that while we need to be right all the

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[9] *Making the Nation Safer: the Role of Science and Technology in Countering Terrorism*, National Research Council, (Washington, DC: National Academies Press, 2002), 220.
[10] U. S. General Accounting Office, *Mass Transit: Federal Action Could Help Transit Agencies Address Security Challenges*, GAO-03-263, (Washington, D.C.: GAO, December 2002), 2.
[11] U. S. General Accounting Office, *Mass Transit: Federal Action Could Help Transit Agencies Address Security Challenges*, GAO-03-263, (Washington, D.C.: GAO, December 2002), 12.

time, the terrorists need to be right only once. That logic suggests the limitations of intelligence to stop terrorist attacks. While a number of the 9/11 hijackers were on terrorist watchlists, the information was not effectively put to use to keep the terrorists from entering the country or being discovered once they were here. Unlike the 9/11 terrorists, the London bombers were homegrown — British citizens and not perpetrators from overseas. To my knowledge, none were on existing terrorist watchlists, nor did any have a history of extremism or violence. In the future, we may have no prior intelligence on our attackers, and even if we do, the information might still not allow us to stop an attack.

Conclusion

The threat posed by terrorists to public transportation systems like the MBTA is not new. The recent bombings in London simply serve to demonstrate the urgent nature of the current threat of jihadist terrorism. While Massachusetts and the rest of the country have done much to improve transit security since 9/11, more can and should be done. Finally, even the best efforts can not ensure that terrorists will not succeed in targeting trains, subways, or buses in the United States sometime in the future.