

3. SECURITY FOR A NATION IN MOTION

Our mass transit and surface transportation systems play a significant economic role in the daily operations of most cities, and their security falls largely on the shoulders of the state and local community and private sector. Mass transit systems are a favored target of terrorists because they are “open,” offer high concentrations of people, and provide the potential to cause large-scale disruption and fear throughout a community. This chapter will explore the challenges in the way we approach making improvements to transit security.¹

Transit systems are inherently difficult to secure because of the volume of their riders, the high number of access points with few obvious inspection and control areas, the need for convenience, and fares with no advance purchase or identification requirement. These facts lead to two key questions:

- ◆ To what extent do these characteristics make it impossible to secure public transportation systems in the same way that we have secured aviation since September 11?
- ◆ What key actions can realistically improve efforts to prevent, mitigate, respond to, and recover from attacks on transit networks?

SOFT TARGET BUT STILL ONLY LIMITED ATTENTION

According to the Congressional Research Service, fully one-third of terrorist attacks worldwide have targeted transportation systems, and public transit is the most frequent transportation target.² Analysis of more than 22,000

terrorist incidents from 1968 through 2004 indicates that attacks on land-based transportation targets, including mass transit, have the highest casualty rates of any category of terrorist attack.³ On average, attacks against such systems created more than two-and-a-half times as many 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 attacks on religious and tourist targets.

So why are transit networks in America still so vulnerable? There are plenty of examples, including the most recent bombings in London, to remind decisionmakers of the vulnerability of mass transit systems. The most notable attacks over the past decade provide significant insight into threats, tactics, and vulnerabilities that need to be addressed by new security measures.

LONDON, JULY 2005. On July 7, 2005, Islamist terrorists struck the Transport for London system with four bombs during the morning rush hour, targeting subway trains and buses.⁴ 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 World War II. 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 had 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 July 21, 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, resulting in only one injury and no fatalities. The suspected bombers were apprehended by authorities.

MADRID, SPAIN, MARCH 11, 2004. Ten bombs detonated in four locations on Madrid's train line by jihadist terrorists killed 191 riders and injured 1,460 others. The bombs were left in backpacks and detonated by cell phones. 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, resulting in hundreds of fatalities.

TOKYO, JAPAN, MARCH 20, 1995. The Japanese extremist sect Aum Shinrikyo attacked the Tokyo subway system using the nerve gas sarin. The gas was released from packages brought on to five subway cars by ten sect members. Twelve people were killed and 6,000 injured. Passengers and personnel in fifteen subway stations were affected by the sarin.

DON'T WAIT FOR THIS U.S. VULNERABILITY TO BECOME REAL

Although attacks similar to those in London, Madrid, Israel, and 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 United States and more than 500 major urban transit operators. Americans take public transportation 32 million times a day, sixteen 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 continue to warn public transportation officials of the possibility of terrorist strikes against their transit networks. 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 and the release of Osama bin Laden's January 2006 tape showed a similar inclination toward the transportation sector.

Public transportation systems in the United States are vulnerable to attack 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 to homeland security planners should be the dense concentration of high-ridership

systems, especially along the northeast corridor between Washington, D.C., and Boston, Massachusetts, as well as the San Francisco, Atlanta, and Chicago public transit networks.

THE CHALLENGES FACING INCREASED SECURITY EFFORTS

More than four years after September 11, there is still no good road map guiding how we spend homeland security dollars in this area. Members of Congress offer new press releases and bills, but build little of the consensus that is so essential to policy success. The 9/11 Public Discourse Project, which sustains the continued efforts of the 9/11 Commission, issued a report card in December 2005 and gave efforts relative to private sector preparedness, critical infrastructure protection, and transportation security strategy grades of C, D, and C– respectively.⁶

The lack of direction and prioritization on homeland security efforts is reflected in the pitifully small sums we spend to improve the security of mass transit.

The federal government now spends roughly \$4.5 billion annually on aviation security, and has cumulatively spent nearly \$20 billion on protecting air transportation since September 11. By and large, this money has been well spent, even if serious problems still exist in the screening of passengers, luggage, and cargo and even if gaps remain in the security of commercial or unscheduled aviation. Yet at the same time, as of 2005, the Department of Homeland Security has spent, by its own estimate, only \$255 million on helping secure ground-based public transportation. That number rises to roughly half a billion dollars if security-related monies from the Transportation Department and for Amtrak since September 11 are counted in the total.

Within a risk management framework, the disparity between the budget allocation for aviation and ground transportation is troubling. The U.S. government maintains the Continuity of Operations Plan (COOP) as a strategy for addressing a certain number of catastrophic risks to our nation and way of life. On a much smaller scale, the private sector calls this “risk management.” Risk management generally requires organizations to:

- ◆ analyze their own risks and threats to their operations;
- ◆ prepare mitigation measures;
- ◆ if a crisis arises, keep the event from spreading; and
- ◆ ensure their ability to recover and restart operations quickly.

The problem with the current thinking is that many elected and appointed officials use the excuse of not being 100 percent able to protect against transit attacks as a justification for not aggressively trying to apply a risk management framework to transit security. For example, Senator Judd Gregg (R-NH), chairman of the Senate Appropriations Subcommittee on Homeland Security, invokes “slippery slope” reasoning when he argues that “there isn’t enough money in the federal treasury to [secure] the entire transit system in America.”⁷ Secretary Chertoff reacted to the London transit bombings by making an argument based on prioritizing risk and sharing responsibilities among federal, state, and local authorities: “The truth of the matter is, a fully loaded airplane with jet fuel, a commercial airliner, has the capacity to kill 3,000 people. A bomb in a subway car may kill thirty people. When [the federal government] start[s] to think about [its] priorities, you’re going to think about making sure you don’t have a catastrophic event first.”⁸

While preventing catastrophic attacks is a vital goal of DHS, it reflects a strained notion of federalism implying that securing public transportation is not a top-order federal priority and assigning the responsibility for preventing terrorist attacks on public transportation largely to state and local officials and owners of mass transit systems. While it is true that the September 11 airplane attacks inflicted more casualties than either of the transit attacks in London and Madrid, attacks on ground-based transportation are far easier to plan and much more likely to occur than another September 11–style attack. Together, London and Madrid killed 250 and injured over two thousand. While the Tokyo sarin attack in 1995 killed only twelve people, it injured six thousand. A similar non-conventional attack on transit, done more effectively, could be devastating.

These facts suggest that the gap between investment in aviation security and ground transportation should be closed. State and local transit authorities have made very serious efforts to improve the security of public transportation, spending \$1.7 billion from September 11, 2001, through 2003 (and this despite a substantial shift in funding for public

transit operations from the federal treasury to state taxpayers and transit riders). But three-quarters of that money went to cover labor-intensive operating expenses, including the sheer manpower cost of extra patrols and overtime. This has left transit authorities with few resources for much needed capital investments in security. The funding needed to protect ground transportation should not come at the expense of aviation security, but from new federal matching appropriations for ground transportation security and from greater creativity in management.

COMPLEX REALITIES OF MAKING IMPROVEMENTS

At the end of the day, there is no “silver bullet” to improve the security of public transportation. 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, cannot prevent frequent deadly bus bombings. The fact that, with the London bombing, suicide attacks have been introduced into subways suggests that deterrence and prevention may get even more difficult going forward. But doing nothing is not the answer to heightened danger.

A LAYERED DEFENSE IS NEEDED

Successful transit security must have multiple layers that prepare, deter, detect, protect, and respond. While this poses a significant challenge in 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 mutually reinforce 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 operations⁹—the more transit operators will be able to meet their main

objective: getting riders to and from their destinations quickly, cheaply, and safely. For example, the Transportation Security Administration's (TSA) new "Visible Intermodal Protection and Response" (VIPER) teams represent an introduction of randomly deployed units that resemble in form and function the Hercules teams described in the preceding chapter.¹⁰

THE LIMITS OF INTELLIGENCE

It is often observed that while we need to be right all the time, the terrorists need to be right only once. This is true on many levels, but most especially with regard to the fallibility of the intelligence process. While a number of the September 11 hijackers were on terrorist watch lists, 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 September 11 terrorists, the London bombers were home-grown, British citizens and not perpetrators from overseas. In the future, we may have no prior intelligence on our attackers, and even if we do, the information still might not allow authorities to stop an attack. As proposed in the preceding chapter, ensuring that the new state and local intelligence fusion centers in major cities are plugged into local transit police departments will at least get the right agencies communicating and reacting to threat information.

FUNDING

Surveys and interviews of transit officials nationwide by the Government Accountability Office (GAO) indicate that "insufficient funding is the most significant challenge in making their transit systems as safe and secure as possible."¹¹ In fact, survey respondents were more than 2.5 times more likely to cite insufficient funding as the main impediment to security than any other factor.¹² Major transit networks are already hard pressed to make needed operational improvements (or even maintain current service) while keeping transit travel affordable; adding the cost of needed security enhancements only compounds the transit

systems' precarious financial situations. 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 up to 20 percent of total annual U.S. passenger trips.¹³ Their study confirmed the GAO's findings of deep concerns about funding among transit authorities.

RECOMMENDATIONS

Without greater federal assistance, we will fail to make the investments that the most vulnerable transit systems in our largest cities need now: better communications interoperability; CCTV cameras; detection equipment for and countermeasures against explosives and weapons of mass destruction (WMD); a backup command center for the D.C. Metro; investments to improve survivability in older systems like those in New York, Chicago, and Boston, including better ventilation, fire safety, lighting, and tunnel and stairwell access.

To increase the ability for law enforcement to prevent or interdict terrorists before they can strike our transit systems we recommend:

3.1. INCREASE VISIBILITY AND FREQUENCY OF PERSONNEL AND INCREASE USE OF CCTV SYSTEMS, much as the preceding chapter recommends for cities above ground. The London and Madrid attackers used tactics that are vulnerable to interdiction if vigilant security personnel are in place and there is an atmosphere that leads terrorists to believe they are under surveillance even before they enter a station. Roaming units of heavily armed police officers, combined with increased CCTV systems, can transfer a sense of insecurity to terrorists, thereby deterring them from carrying out their plans or making it harder for their plans to succeed. These programs should be considered for further application nationwide.

3.2. PROMOTE PUBLIC ENGAGEMENT TO FOSTER SECURITY AWARENESS. ABC News producers were able to leave bags unattended for hours on an Amtrak train heading from Washington, D.C., to New York. That fellow passengers failed to do anything about the suspicious

backpacks—similar to the ones used in Madrid—demonstrates the challenge officials face in trying to persuade the public to engage in its own security. New York’s “If you see something, say something” public awareness campaign to instill a security mindset in staff and enlist public vigilance is a good start; similar efforts are under way in other cities. Elected leaders and the media must play a role in increasing citizen awareness of suspicious activity and readiness to then tell police. These efforts should be followed by market surveys to monitor their effectiveness in heightening transit riders’ awareness and vigilance.

3.3. ENSURE THAT INTEROPERABLE COMMUNICATIONS SYSTEMS AND ROBUST COMMAND AND CONTROL SYSTEMS ARE EXTENDED TO GROUND TRANSPORTATION SYSTEMS. Police officers operating below ground in the tunnels of a transit system need to be assured they can get the right message to the right people, at the time when it most matters. Installing repeaters in the tunnels is a first step, but this network must also support those agencies that will react to a crisis from above ground.

3.4. CONDUCT ANNUAL RISK ASSESSMENTS AND REVIEW POTENTIAL THREATS, VULNERABILITIES, AND CONSEQUENCES WITH LOCAL AND FEDERAL OFFICIALS. The Transportation Security Administration should conduct or update these assessments annually to ensure that the threat and risk information has been integrated into the state and local intelligence fusion centers and that funding for closing security gaps is coordinated with metropolitan preparedness efforts.

3.5. ENSURE ADEQUACY OF CRISIS MANAGEMENT AND COMMUNICATIONS PLANS, AWARENESS OF PLANS, READINESS OF EQUIPMENT AND PERSONNEL, AND ACCURACY OF ALL CONTACT INFORMATION. Hold regular training and exercises on the full spectrum of threats. The full range of transit personnel has a role to play in the security and effective operations of a transit network in times of crisis. In Hurricane Katrina, a lack of bus drivers was blamed for inadequate execution of a portion of the city’s evacuation plan. As DHS continues to focus on catastrophic attacks using WMD, these exercises should include more robust and realistic training in quarantine and decontamination following an attack on a transit system.

3.6. CONTINUE DEVELOPMENT OF NEW EXPLOSIVE AND WMD DETECTION AND COUNTERMEASURES. Allow the use of DHS grant money for deployment of canine units until effective detection technologies can be brought to bear. Develop countermeasure sensor systems that mesh with biosurveillance and public health networks.

3.7. DIRECT FEDERAL FUNDING TO SUPPORT CAPITAL IMPROVEMENTS THAT WILL HELP PREVENT ATTACKS, MITIGATE THE EFFECTS OF AN ATTACK, AND ALLOW THE TRANSIT SYSTEM TO BE RAPIDLY RECOVERABLE. Transportation earmarks in congressional appropriations need to begin accounting for risk and recoverability, with particular attention to vulnerable basic infrastructure. For example, if the seawall holding back the Hudson River at the World Trade Center site had failed on September 11, there would have been nothing to stop the river from flooding the entire New York City subway system. It would be useful to install gates that can be closed to contain flooding, fire, or chemical releases. Improving ventilation, drainage, emergency lighting, and ingress/egress are smart security and effective operating investments.



These recommendations are not a request for unlimited spending. Addressing the most pressing capital needs would require \$3 billion to \$4 billion in directed federal aid over the next three to five years. Many of these upgrades will bring additional benefits, helping improve the overall safety, operations, and reliability of public transportation systems. To put these sums into perspective, the transportation bill passed by Congress in 2005 allocated \$3 billion for bicycle and walking trail projects.

Reacting intelligently to Madrid, London, and decades of deadly terrorist attacks against public transportation in other locations does not mean that we are doomed to spend ourselves into oblivion. Nor does it mean that we are taking our eye off the ball in the current War on Terrorism. Just the opposite: By doing more to secure and protect public transportation, we will be looking terrorism—both its history and current tactics—squarely in the eye.