

Testimony of Trixie Johnson
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Committee on Government Affairs
"Riding the Rails: How Secure Is Our Passenger and Transit Infrastructure?"

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The Mineta Transportation Institute Studies: Protecting Surface Transportation from Terrorism and Serious Crime

The Mineta Transportation Institute (MTI), a University Transportation Center, was created by ISTEA in 1991 and began a series of counter-terrorism studies in 1996, led by Brian Jenkins. A former director of the Rand Corporation's research on terrorism and a consultant to a number of government agencies and corporations, Mr. Jenkins is one of the world's foremost authorities on international terrorism. He regrets that he is unable to appear before the Committee this morning.

MTI has conducted two national symposia and has completed two major research reports on the topic. We have initiated a case study of surface transportation issues related to the 9/11 attack in New York. The Committee is provided the Executive Overview¹ of the prior projects, which is the basis for this testimony. All four publications are available on the MTI website at <http://transweb.sjsu.edu/pubs.htm>. At the request of APTA and AASHTO and cosponsors US DOT RSPA and Caltrans, MTI presented the "National Transportation Security Summit" in Washington D.C. on October 30, 2001. The heads of state departments of transportation, leading transit, transportation labor, and federal officials attended this secured briefing, receiving information that could not be made available in print. Additionally, the Summit highlighted several federal security and response training programs.

Nature of the Threat

The threat is real. Terrorists (and deranged individuals) view passenger rail systems as killing fields. They offer:

A system that is difficult to secure. (High volume, multiple access points with no obvious inspection checkpoints, absolute need for convenience, no advance purchase of tickets by name, cheap fares).

An opportunity to publicize a cause and to terrorize civilian populations.

The potential for major service and economic disruption and costly loss of infrastructure.

An ideal environment for the use of chemical or biological weapons.

Not all systems are equal. Major urban systems, those with higher passenger loads, are more attractive targets. However, major events inspire copycats, putting smaller systems at risk.

Most terrorists operate close to their place of residence. For example, Islamic extremist residents of New York City planned suicide bombings in the subway in 1997. Two gasoline bombs detonated in the New York subway in December 1994 were the work of a

local man acting on his own.

Shared Protection and Incident Response Responsibility

Protection of the nation's rail systems depends on many enforcement agencies. Dedicated police and security forces provide primary coverage, but systems necessarily depend on federal, state, county, municipal and other law enforcement agencies. Response requires a multiplicity of organizations beyond system personnel. Coordination and cooperation are essential elements of both.

The "Right" Level of Security

The "right" level of security is difficult to determine. Terrorist threats are not easily quantified. Cost-benefit analysis is an inadequate sole criterion. Measuring lives saved is a strong argument, but individual risk is miniscule. The size of a system determines the security costs, not the capabilities of potential attackers.

Security cannot entirely prevent terrorist attacks. However, security measures can make terrorist operations more difficult, increase the likelihood of detection, minimize casualties and disruptions, reduce panic, and reassure alarmed passengers.

Learn from the Experience of Others

Systems around the world have faced threats and developed security responses. Their "best practices" should be examined and considered by system operators. MTI research provides detailed case studies and recommendations.

MTI's new Terrorism Vulnerability Assessment service allows for confidential consultation. MTI's core research team, led by Brian Jenkins, is conducting independent evaluation of security and response status for bridges, tunnels, transit agencies, and others.

Selected Lessons Learned

The Tokyo sarin event: The train and passengers can inadvertently carry chemical weapons released in a subway, and the chemical spreads rapidly along the line as far as the train is allowed to go. One contaminated train ran through the system three times before it was stopped. Every minute between the release and the response increases the exposure.

Shutting down trains requires good diagnostics. Operators must be able to detect a hit and to assess the event. CCTV is useful. Basic sensors are becoming available. D. C. METRO has initiated an experimental sensor program.

Design to minimize destruction and casualties. Physical destruction from a bomb is only one cause of loss. Fire and smoke must also be considered. Air systems are critical areas for preventive design.

Do background checks on system staff. This is an obvious, but overlooked, requirement.

Some prevention activities will be costly, but are affordable on a cost-per-user basis. For example, an estimated \$1 billion would cover the cost of chemical sensors for the 12 largest transit systems in the United States. That is an investment of a fraction of a cent

per ride for one year.

Continue to conduct case studies and learn the lessons they offer. MTI's case study of 9/11 is underway.

Disseminate the research and the lessons learned. Operators can be reached through conferences, publications, individual vulnerability assessments, and training programs.

Security measures have collateral benefits. Measures implemented to reduce the threat of terrorism also reduce ordinary crime from graffiti to pickpockets.

Ten Low Cost Measures That Every System Can Do

Conduct a vulnerability assessment and review the threat potential with local and federal authorities.

Review and rehearse immediate response and evacuation procedures for obvious threats (bombs, suspicious packages and sudden outbreaks of illness).

Make staff and security measures more visible.

Increase the frequency of security patrol.

Ensure the adequacy and awareness of crisis management plans.

Enlist the public in surveillance, and assure that the staff is ready to respond.

Instill a security mindset throughout the entire staff.

Review security plans for actual implementation status, readiness of equipment, and accuracy of all contact information.

Keep the premises spotless.

Reduce the obvious hiding places, such as trashcans (which should be emptied frequently and placed correctly or eliminated).

Act Now

The vulnerability of our passenger and transit rail systems to potential terrorist attack is not a new phenomenon. Awareness of the threat and public support for the required efforts is new. Operators, regulators, and legislators at all levels of government must do what can be done to protect the nation's passenger and transit rail systems.

On behalf of Brian Jenkins and the MTI Counter Terrorism research team , I appreciate this opportunity to address the Committee. The Institute is happy to assist you in any way.

Endnote:

¹ Jenkins, Brian. *Protecting Public Surface Transportation Against Terrorism and Serious Crime: An Executive Overview*. San Jose, California: Mineta Transportation Institute, 2001.

Appendix:

The following section summarizes the extensive MTI counter-terrorism research and information transfer efforts, beginning in 1996:

"Terrorism in Surface Transportation: A National Symposium", March 1996. Details proceedings of a national symposium on terrorism. Transcribes presentations by speakers from the following groups: New York Transit Authority on lessons learned from terrorist attacks, the FBI on local authorities working with the agency, Amtrak on predicting derailments, and American Medical Response West, Inc. on emergency terrorism response systems. Also includes panel discussions and background appendices. MTI Research Associate Brian Jenkins was the team leader.

"Protecting Surface Transportation Systems and Patrons from Terrorist Activities: Case Studies of Best Security Practices and a Chronology of Attacks", December 1997. Includes cases from the Paris subway system, Amtrak, the New York City Transit Authority, and the Metropolitan Atlanta Rapid Transit Authority. Also examines security design/planning, response, and recovery. Chronology of attacks from 1920-97. RA Brian Jenkins was the research team leader.

"Protecting Surface Transportation Systems and Patrons from Terrorist Activities: Continuation of Case Studies of Best Security Practices and Updated Chronology of Attacks", October 2001. Updates chronology of attacks through 2000. Adds 4 case studies, including U.K. IRA attacks and the 1995 Sarin attack in Tokyo. Defines best practices, including pre-incident preparedness (from closed circuit TV to trash containers) and response and recovery (from crisis management plans to integrated inter-agency exercises). RA Brian Jenkins was the team leader with co-authors Dr. Larry Gerston (Political Scientist) and Dr. Frances Edwards-Winslow (disaster response expert).

"Protecting Public Surface Transportation Against Terrorism and Serious Crime: An Executive Overview", October 2001. Summarizes and reviews the prior three terrorism publications and includes a Terrorism Vulnerability Assessment Checklist. Presented at the 10/30/01 "National Transportation Security Summit" co-sponsored by the US and California DOTs, AASHTO and APTA and presented by MTI in Washington, D. C. on 11/30/01.

"Lessons of 9/11/01 - Case Study". The MTI Counter Terrorism Research Team has begun the complex study of the various surface transportation programs preparations for and responses to the 9/11 attacks to add to the best practices case studies previously conducted by MTI.

Terrorism Vulnerability Assessment Peer Reviews. The MTI Counter Terrorism Research Team has developed a Terrorism Vulnerability Assessment Check List based upon the

lessons learned from the best practices found during the numerous case studies. The Team is conducting vulnerability assessments for bridges, tunnels, transit agencies, inter-modal stations, and other surface transportation facilities throughout North America using the check list and their unique experience as a guide.