

Bus Operator Awareness Research and Development Training Program



MTI Project 2875-II



MINETA TRANSPORTATION INSTITUTE

The Norman Y. Mineta International Institute for Surface Transportation Policy Studies was established by Congress in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The Institute's Board of Trustees revised the name to Mineta Transportation Institute (MTI) in 1996. Reauthorized in 1998, MTI was selected by the U.S. Department of Transportation through a competitive process in 2002 as a national "Center of Excellence." The Institute is funded by Congress through the United States Department of Transportation's Research and Innovative Technology Administration, the California Legislature through the Department of Transportation (Caltrans), and by private grants and donations.

The Institute receives oversight from an internationally respected Board of Trustees whose members represent all major surface transportation modes. MTI's focus on policy and management resulted from a Board assessment of the industry's unmet needs and led directly to the choice of the San José State University College of Business as the Institute's home. The Board provides policy direction, assists with needs assessment, and connects the Institute and its programs with the international transportation community.

MTI's transportation policy work is centered on three primary responsibilities:

Research

MTI works to provide policy-oriented research for all levels of government and the private sector to foster the development of optimum surface transportation systems. Research areas include: transportation security; planning and policy development; interrelationships among transportation, land use, and the environment; transportation finance; and collaborative labor-management relations. Certified Research Associates conduct the research. Certification requires an advanced degree, generally a Ph.D., a record of academic publications, and professional references. Research projects culminate in a peer-reviewed publication, available both in hardcopy and on TransWeb, the MTI website (<http://transweb.sjsu.edu>).

Education

The educational goal of the Institute is to provide graduate-level education to students seeking a career in the development and operation of surface transportation programs. MTI, through San José State University, offers an AACSB-accredited Master of Science in Transportation Management and a graduate Certificate in Transportation Management that serve to prepare the nation's transportation managers for the 21st century. The master's degree is the highest conferred by the California State University system. With the active assistance of the California

Department of Transportation, MTI delivers its classes over a state-of-the-art videoconference network throughout the state of California and via webcasting beyond, allowing working transportation professionals to pursue an advanced degree regardless of their location. To meet the needs of employers seeking a diverse workforce, MTI's education program promotes enrollment to under-represented groups.

Information and Technology Transfer

MTI promotes the availability of completed research to professional organizations and journals and works to integrate the research findings into the graduate education program. In addition to publishing the studies, the Institute also sponsors symposia to disseminate research results to transportation professionals and encourages Research Associates to present their findings at conferences. The World in Motion, MTI's quarterly newsletter, covers innovation in the Institute's research and education programs. MTI's extensive collection of transportation-related publications is integrated into San José State University's world-class Martin Luther King, Jr. Library.

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the information presented herein. This document is disseminated under the sponsorship of the U.S. Department of Transportation, University Transportation Centers Program and the California Department of Transportation, in the interest of information exchange. This report does not necessarily reflect the official views or policies of the U.S. government, State of California, or the Mineta Transportation Institute, who assume no liability for the contents or use thereof. This report does not constitute a standard specification, design standard, or regulation. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Department of Homeland Security.

BUS OPERATOR AWARENESS RESEARCH AND DEVELOPMENT TRAINING PROGRAM

Christopher Kozub
Brian Michael Jenkins

July 2012

A publication of

Mineta Transportation Institute

Created by Congress in 1991

College of Business
San José State University
San José, CA 95192-0219

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. CA-MTI-12-2875-II	2. Government Acession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Bus Operator Awareness Research and Development Training Program		5. Report Date July 2012	
		6. Performing Organization Code	
7. Authors Christopher Kozub and Brian Michael Jenkins		8. Performing Organization Report MTI Report N/A	
9. Performing Organization Name and Address Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219		10. Work Unit No.	
		11. Contract or Grant No. 2008-ST-061-TS0004-04	
12. Sponsoring Agency Name and Address California Department of Transportation U.S. Department of Transportation Office of Research—MS42 Research & Innovative Technology Admin. P.O. Box 942873 1200 New Jersey Avenue, SE Sacramento, CA 94273-0001 Washington, DC 20590 U.S. Department of Homeland Security Science and Technology Dictorate Washington, DC 20528		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplemental Notes			
16. Abstract Welcome to the Bus Operator Security Training Program overview, a security awareness course specifically designed for public transit bus operators. This training is designed to enhance your abilities as a bus operator to: <ul style="list-style-type: none"> • Quickly and effectively evaluate suspicious and dangerous activities • Take actions to protect yourself and your passengers, and • Provide timely and accurate information to law enforcement through your control center This summary and the full instructor-led course were developed by the Transportation Security Administration (TSA) in cooperation with the National Transportation Security Center of Excellence (NTSCOE), managed through the Science and Technology Directorate of DHS. Through the intensive efforts of four universities and two federal agencies, the team conducted extensive research both nationally and abroad to identify appropriate countermeasures and related skill sets for bus operators relative to identifying suspicious and dangerous activity and reacting appropriately with a focus on life safety concerns.			
17. Key Words Public bus; Awareness; Surface transportation; Security; Operator		18. Distribution Statement No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 10	22. Price \$15.00

Copyright © 2012
by **Mineta Transportation Institute**
All rights reserved

Disclaimer: The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Department of Homeland Security.

This material is based upon work supported by the U.S. Department of Homeland Security under Award Number: 2008-ST-061-TS0004-04.

To order this publication, please contact:

Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219

Tel: (408) 924-7560
Fax: (408) 924-7565
Email: mineta-institute@sjsu.edu
transweb.sjsu.edu

ACKNOWLEDGMENTS

The authors thank MTI staff, including Deputy Executive Director and Research Director Karen Philbrick, Ph.D.; Director of Communications and Technology Transfer Donna Maurillo; Student Publications Assistant Sahil Rahimi; Student Research Support Assistant Joey Mercado; and Webmaster Frances Cherman.

BOARD PH II POWERPOINT NARRATION TRANSCRIPT

Welcome to the Bus Operator Security Training Program overview, a security awareness course specifically designed for public transit bus operators.

This training is designed to enhance your abilities as a bus operator to:

- Quickly and effectively evaluate suspicious and dangerous activities
- Take actions to protect yourself and your passengers, and
- Provide timely and accurate information to law enforcement through your control center

This summary and the full instructor-led course were developed by the Transportation Security Administration (TSA) in cooperation with the National Transportation Security Center of Excellence (NTSCOE), managed through the Science and Technology Directorate of DHS. Through the intensive efforts of four universities and two federal agencies, the team conducted extensive research both nationally and abroad to identify appropriate countermeasures and related skill sets for bus operators relative to identifying suspicious and dangerous activity and reacting appropriately with a focus on life safety concerns.

The application of this information must be done with respect to your agency's procedures and policies. Keep in mind that procedures and "acceptable measures" may change based on threat levels or perceptions. These factors can be influenced by actual incidents, either domestically or internationally, or by communications from federal agencies to your system's chief law enforcement officers.

Regardless of the current threat level, the use of basic skills such as being aware of your surroundings, alert for things that are out of place, and diligent in reporting these observations can significantly deter criminal and terrorist activity.

A bus is your "office". It is where you safely, efficiently, and courteously move people to work, school, home, and hundreds of other destinations.

Unfortunately, given the number of people who use public transit buses, as well as the scheduled and published frequent service and operations in densely populated areas, transit buses around the world have been targeted by various domestic and international terrorists.

Simply put, the impact of an attack, typically using explosives and/or automatic weapons, is horrific. For those fortunate enough to survive the attack, their lives will never again be "normal" – forever changed by the physical and emotional scars.

While the presence of local or transit system police certainly enhances security and deters criminal and terrorist attacks, they can not be on every bus and at every stop.

As an operator, you and your colleagues are on every bus and at every stop. This put you in a unique position to play a key role in preventing and effectively responding to terrorist attacks. No one is more aware of the surroundings, on and off the bus, and the instinctive ability to tell what is and what isn't threatening, suspicious or out of place, and normal. You also have the ability to report and/or react to these situations in "real-time" that can greatly assist law enforcement and protect your life and the lives of your customers and the public.

To some degree you are already doing this. When you come upon an accident, emergency construction, or other road hazards and obstructions, you report them to the control center so other operators can be informed and diversions, if needed, can be implemented.

While typically far less frequent, you also report criminal acts such as vandalism, robberies, and assaults as soon as it's safe to do so.

Likewise, your role in counter-terrorism is to be aware surroundings and report activities that, to you, appear to be dangerous or suspicious, and when the situation warrants, take appropriate and reasonable actions to avoid dangerous activities to protect yourself and your passengers.

When you observe suspicious activity, your primary role is to provide a factual description of the activity to law enforcement, through your control center or other agency-defined contact. Similar to the "See Something, Say Something" campaigns launched by the US Department of Homeland Security and transit agencies across the country, the focus of your responsibility is to report what you feel is suspicious based on your training, your experience, and your instincts.

Suspicious activity is not something that you feel is an immediate or near-term threat to the safety of you or others but something that is happening that just seems out-of-place, not right, or not easily explainable.

The key in identifying suspicious activity is NOT to focus on Who, meaning the race, ethnicity, gender, or religious beliefs of those we think might be involved in suspicious activities, but rather to focus on identifying the behaviors. Determining suspicion based on a person's ethnic, racial, or other "profile" is not only a violation of their civil rights and liberties, it is proven to be ineffective in identifying real suspicious activities that could be threatening to your safety and security.

When observing behaviors, you need to consider the big picture and all of the factors involved in any situation:

- What is the activity?
- Where is the activity occurring?
- When is the activity taking place? and
- How is the activity being conducted?

Concentrating on a combination of these four factors will help you identify suspicious activities as you go through your day.

“What” describes the type of activity. Asking questions, studying operations, accessing restricted areas, attempting to sabotage or steal information or items, or making threats are some examples of suspicious activities.

“Where” and “When” are rather straightforward. What is the location and time of the activity and do one or both of these factors make it suspicious or more suspicious?

“How” can cover a number of things including the way in which the person is behaving while conducting the activity. If someone is open about photographing local landmarks, they are clearly behaving in a different and most likely less suspicious manner than someone who is trying to hide the fact that they are videotaping buses and/or employees arriving and departing a major transfer point.

The following types of suspicious activity are some examples of behaviors that could be terrorism-related and should be reported when observed.

- Access of a restricted area such as offices, garages, employee break rooms, or areas not open to the public by an unauthorized person. Someone may attempt this to see how strong or “hard” your systems security measures are. By trying to walk into secure or non-public areas such as garages someone may be trying to see if there are measures to prevent non-employees from doing so. If the person is stopped and questioned he or she will usually pretend to be lost.
- Misrepresentation, like pretending to be a delivery person, or presentation of false or stolen credentials, such as employee ID badges, to try and gain access to restricted areas or sensitive information.
- Theft or loss of materials associated with your agency, such as ID badges, uniforms, radios or cell phones, emergency equipment that would allow someone to breach physical or cyber security systems.
- Sabotage, tampering, or vandalism of agency vehicles, facilities, or other equipment or property.
- An expressed or implied threat to harm employees or customers or damage agency property, such as written or verbal threats.
- Seeking abnormal or security sensitive information about an agency’s staff, customers, operations, facilities, or equipment, such as attempts to obtain personnel records, equipment design, or staff training related to agency security. Security sensitive information, or SSI, is material and data that is most often NOT available through online or other public sources and should be carefully guarded by your system’s management. This is material that a person intending to attack your system or a nearby target would be very interested in. Do not divulge security

sensitive information or talk about agency policies or procedures. Just because people ask you questions, however, does not mean they are criminals or terrorists, but if possible, you should ask them questions to determine their intentions and inform them of what are acceptable topics for discussions and questions. This will send a message of professionalism and security diligence. In any case, anyone who asks for information that is available on your agency's website, printed material, or through customer service is NOT trying to obtain SSI since it is already available to the public.

- Testing or probing of agency security to reveal physical, personnel, or cyber security capabilities and vulnerabilities, such as repeated false alarms intended to test and observe employee and first responder behaviors and procedures, and
- Conducting surveillance through photography or studied-observation of staff, customers, operations, or facilities, conducted in a covert manner so as not to be detected or confronted by employees or law enforcement officers or photography of sensitive and not-normal subjects of artists, tourists, or hobbyists, such as employee access gates, CCTV camera, or fuel storage tanks.

Remember, photography and other similar activities are constitutionally protected activities unless connected to other activities such as trespassing and should only be reported when they indeed appear to be suspicious or out of the norm for a particular area or region. Trespassers, regardless of their activities, are violating procedures and breaking the law and should be reported immediately.

It is important to note that people who are conducting surveillance are trying hard to not be seen or detected. The primary way for a criminal or terrorist to study a target is by viewing operations and/or facilities from remote, obscure, or covert locations, This can be done by:

- Using binoculars or long-lens cameras in unusual places
- Individuals or vehicles seen at stops, terminals, or along routes for prolonged or multiple periods
- Sightings of similar or exactly the same persons or vehicles along routes or at facilities, and
- Individuals or vehicles quickly leaving when seen or approached

Surveillance is critical to a terrorist choosing a target and planning and carrying out a successful attack. It is when they are actively studying your system, usually recording information in some manner, to gain a better understanding of your operations and security weaknesses. It is also the time when they, the terrorists, become most vulnerable to detection and apprehension.

If someone at one of your agency's facilities, on your bus, or at a stop appears to be lost or acting abnormally – but not dangerously – and it is within your agency's protocol, ask

a few open-ended questions, those requiring more than “yes” or “no” answers. Based on your experience, you will often be able to quickly determine if they are indeed lost or are acting suspicious. The key indicators in their answers or responses are:

- What they say – do the answers make sense or are they trying to act like they know what they’re talking about when they clearly don’t. Someone who is lost will most likely not know how to get where they want to go but they should know where they want to go
- How they respond – are they stammering or being vague or evasive or are they being direct and clear. In most cases, people who are lost will be looking for and welcome help
- How they act – while cultural nuances cause some people to act differently, someone who is genuinely lost or in need of help – while still being rattled or upset – will show some sign of relief and possible appreciation when afforded some information or direction that will help. For someone who is trying to hide their intentions or actions, they will typically get more nervous and elusive in their responses

In cases where their behavior is not explainable and therefore suspicious, your role is to report their activity and location, as well as a description of the person so law enforcement can identify and locate them, to the control center as soon as possible.

In some cases, what you observe may not be suspicious or questionable but may indeed appear threatening or dangerous. Many people, particularly those who regularly deal with the public and “open” environments, like buses and bus terminals, have a keen sense of what is dangerous to them. Something instinctive triggers a heightened level of awareness and the person quickly develops action plans for self-preservation. These situations could range from seeing one or more customers board your bus while trying to conceal weapons under their coats to a mutual feeling on the part of you and some of your passengers that a bomb has been left on your bus. In any situation where you and/or some of your passengers feel in danger, you should take actions, provided they are in line with your agency’s procedures, to protect your safety and the safety of others. This could include a device or substance on your bus or some kind of activity at a bus stop in front of you. In any case, keep a level head, don’t jump to conclusions but also don’t second guess your gut instincts, experience, and training. If you feel there is danger, react appropriately. Remember, making no decision and taking no action is ultimately making a decision to take no action.

In cases where the threat is on the bus, calmly and safely pull over, evacuate and secure the bus by closing the doors behind you, request that people move away and stay away from the bus, and report your location and the situation to the control center as quick as possible. If you feel the threat is a package or device – do not move or touch it. If you feel the threat is one of your passengers, possibly one carrying an automatic weapon or wearing or carrying an explosive device, curb your bus, announce that the bus is out of service due to a mechanical problem, direct everyone to leave, and after securing the empty bus, contact the control center to report your location, the situation, and request

assistance. Under no circumstances should you approach or engage the person or person you perceive as the threat.

When there is a situation where there appears to be a dangerous person or condition at a stop, take appropriate steps, that are in-line with your agency's procedures, to avoid exposing yourself and your passengers to that threat. Do not continue driving your route but safely stop your bus away from the danger and report the situation to the control center immediately. You may also be asked to take actions such as this in situations where there is an elevated security threat level or direct threat to your system.

How you report your observations of suspicious or dangerous activity will depend on the seriousness of the situation and your agency's policies and procedures. However, keep in mind that reporting suspicious activity hours or days later will significantly impact law enforcement's ability to follow-up on the report. Timely reporting may allow for police to witness the activity themselves and question the people involved. Even if you did not report your observations immediately, it is never too late to do so. This is especially critical if you hear other operators formally or informally mentioning situations. Terrorists may conduct surveillance and pre-attack activities for several weeks or months prior to an attack. Confirming or corroborating other reports and/or contributing additional information will assist police in their investigation efforts.

In every transit system the control center is your primary point of contact and is there to manage and support all operations and service. Dispatchers can communicate with all operators and route or street supervisors as well as contact emergency services when needed.

In any situation, quickly plan out what you are going to report and make sure you have the important details. It is difficult to make a clear report to others before it is clear in your mind. Make sure your report is concise by eliminating information that is not essential.

As much as possible, try and remain calm. If you show visible signs of fear, anger, or anxiety you may tip off the potential attacker, putting yourself and others in danger or possibly lose the opportunity to make a complete report. Even when there is no potential attacker present, you may frighten your customers and incite chaos.

Clearly reporting and communicating information is CRITICAL to the security of your system. Don't let other people's actions or reactions dissuade you from doing what you can do and should do to keep yourself and others safe. Use short, clear sentences. Make sure the person you are speaking with knows your exact location. In verbal reports, especially over the radio/phone, clarify words that could be misunderstood. Differences in word meaning and misinterpretation can be major sources of communication failure.

When making a report the most important information is your location and a factual description of the situation. Briefly explain what has happened and be ready for questions. Provide the location of activity, explain specific activities and behaviors and, if appropriate, give a description of people, devices or weapons, and vehicles involved in the activity.

These are the key pieces of information that law enforcement personnel will need to know to send help. When possible, give a specific address and location and use landmark references carefully and only when other information is not available. Time that may be wasted trying to find a location with incomplete information could have significant consequences.

When calling in, you should not embellish the report with unnecessary background information. To the best of your ability, answer all the questions you may be asked and don't be afraid to say that you don't know something. Letting your imagination fill in the blanks could lead police in the wrong direction or to the wrong conclusion.

After you make the initial report, confirm that it has been received and understood. Ask for feedback from the dispatcher if it is not provided. If there is any confusion or misunderstanding you have the opportunity to correct it. Answer any follow-up or clarifying questions to the best of your ability and knowledge. Don't make up information or guess in a response to a question. Stick to the facts regarding what you saw and heard.

Remember, when observing behaviors, the key in identifying suspicious activity is NOT to focus on "who", meaning the race, ethnicity, gender, or religious beliefs of those we think might be involved in suspicious activities – which could be a violation of their civil rights, but rather to focus on identifying what the activity is, where and when is it happening, and how it is being conducted. Concentrating on a combination of these four factors is the most effective way to identify suspicious activities.

You and your co-workers are an integral part of your agency's and the community's fight against terrorism. Your eyes and ears on the streets, your training and experience, and your ability to quickly report suspicious and/or dangerous activity is a unique and vital resource to law enforcement efforts. While you may not be a First Responder, through your alertness and engagement, you may be a First Preventer.

We hope this training has enhanced your abilities as a bus operator to:

- Quickly and effectively evaluate suspicious and dangerous activities
- Take actions to protect yourself and your passengers, and
- Provide timely and accurate information to law enforcement through your control center

Additional courses and training materials, focusing on security and terrorism awareness, are available through the US Department of Homeland Security and the US Department of Transportation. Ask your supervisor, labor union leader, or your agency's training or law enforcement department for more information.

ABOUT THE AUTHORS

CHRISTOPHER KOZUB

Christopher Kozub joined MTI's growing team of internationally recognized transportation experts as a Research Associate in May 2010 and brings a unique background encompassing over 30 years of experience in the emergency services, transportation safety and security, and training fields.

Before coming to MTI, Mr. Kozub served for the past ten years as an Associate Director at Rutgers University where he worked with the National Transit Institute, the Voorhees Transportation Center, and the newly formed Center for Transportation Safety, Security, and Risk. During his time at Rutgers, he was the principle investigator on a number of federally sponsored surface transportation research, training, and outreach projects addressing system safety, emergency management, system security, and terrorism awareness and response.

Prior to joining Rutgers, Mr. Kozub served as the Director of Training for the Operation Respond Institute (ORI) in Washington, DC where he developed and delivered specialized emergency response training on behalf of the FRA and FHWA as well as Amtrak, VIA Rail, Conrail, and other railroads and transit systems. While at ORI he worked closely with Amtrak to develop and deliver security, safety and tactical training to emergency responders along the northeast corridor in connection with the infrastructure improvements, operational changes, and new equipment acquisitions associated with Acela high speed rail service implementation.

Mr. Kozub has also held senior management positions at emergency services training centers for New Jersey's Hunterdon and Middlesex counties where he worked with the Association of American Railroads and Conrail to bring specialized hazardous materials training to the northeast part of the country. He also worked with the Port Authority of New York and New Jersey to develop and deliver fire, rescue, and hazardous materials training for their police and emergency services' departments, including the development of a specialized WMD program following the 1995 Tokyo subway attacks.

Kozub works with key stakeholders in the federal agencies, surface transportation trade associations, and labor organizations to develop and implement safety and security training programs for front-line employees, supervisors and emergency responders in the public transit, highway, rail, and maritime modes. He has also testified before Congress, providing a broad industry perspective on current issues in public transit operational and infrastructure security.

BRIAN MICHAEL JENKINS

Brian Michael Jenkins received a Bachelor of Arts degree in fine arts and a Masters degree in history, both from UCLA. He also studied at the University of Guanajuato, Mexico, and in the Department of Humanities at the University of San Carlos, Guatemala, where he was

a Fulbright Fellow and received a second fellowship from the Organization of American States.

Commissioned in the infantry at the age of 19, Mr. Jenkins became a paratrooper and ultimately a captain in the Green Berets. He is a decorated combat veteran, having served in the Seventh Special Forces Group in the Dominican Republic during the American intervention and later as a member of the Fifth Special Forces Group in Vietnam (1966–1967). He returned to Vietnam on a special assignment in 1968 to serve as a member of the Long Range Planning Task Group; he remained with the Group until the end of 1969, receiving the Department of the Army's highest award for his service. Mr. Jenkins returned to Vietnam on an additional special assignment in 1971.

In 1983, Mr. Jenkins served as an advisor to the Long Commission, convened to examine the circumstances and response to the bombing of the U.S. Marine Barracks in Lebanon. In 1984, he assisted the Inman Panel in examining the security of American diplomatic facilities abroad. In 1985–1986, he served as a member of the Committee of the Embassy of the Future, which established new guidelines for the construction of U.S. diplomatic posts. In 1989, Mr. Jenkins served as an advisor to the national commission established to review terrorist threats following the bombing of Pan Am 103. In 1993, he served as a member of the team contracted by the New Jersey–New York Port Authority to review threats and develop new security measures for the World Trade Center following the bombing in February of that year.

In 1996, President Clinton appointed Mr. Jenkins to the White House Commission on Aviation Safety and Security. From 1999 to 2000, he served as an advisor to the National Commission on Terrorism, and since 2000, he has been a member of the U.S. Comptroller General's Advisory Board. Mr. Jenkins is also the Director of the National Transportation Security Center at the Mineta Transportation Institute and since 1997 has directed the Institute's continuing research on protecting surface transportation against terrorist attacks.

Mr. Jenkins is a Special Advisor to the International Chamber of Commerce (ICC) and a member of the advisory board of the ICC's investigative arm, the Commercial Crime Services. Over the years, he has served as a consultant to or carried out assignments for a number of government agencies, including the Department of Homeland Security (DHS). As part of its international project to create a global strategy to combat terrorism, the Club of Madrid in 2004 appointed Mr. Jenkins to lead an international working group on the role of intelligence.

Mr. Jenkins is the author of *International Terrorism: A New Mode of Conflict*; the editor and co-author of *Terrorism and Personal Protection*; the co-editor and co-author of *Aviation Terrorism and Security*; and a co-author of *The Fall of South Vietnam*. His latest books are *Unconquerable Nation: Knowing Our Enemy, Strengthening Ourselves and Will Terrorists Go Nuclear?* He is also the author of numerous articles, book chapters, and published research reports on conflict and crime.

MTI FOUNDER

Hon. Norman Y. Mineta

MTI BOARD OF TRUSTEES

Honorary Chairman

John L. Mica (Ex-Officio)

Chair
House Transportation and
Infrastructure Committee
House of Representatives

Honorary Co-Chair, Honorable

Nick Rahall (Ex-Officio)

Vice Chairman
House Transportation and
Infrastructure Committee
House of Representatives

Chair, Mortimer Downey

(TE 2013)

Senior Advisor
PB Consult Inc.

Vice Chair, Steve Heminger

(TE 2013)

Executive Director
Metropolitan Transportation
Commission

Executive Director

Rod Diridon* (TE 2011)

Mineta Transportation Institute

Thomas E. Barron (TE 2013)

President
Parsons Transportation Group

Ignacio Barron de Angoiti

(Ex-Officio)

Director Passenger and High Speed
Department
International Union of Railways
(UIC)

Joseph Boardman (Ex-Officio)

Chief Executive Officer
Amtrak

Donald H. Camph (TE 2012)

President
California Institute for Technology
Exchange

Anne P. Canby (TE 2011)

President
Surface Transportation Policy Project

Julie Cunningham (TE 2013)

Executive Director/CEO
Conference of Minority
Transportation Officials

William Dorey (TE 2012)

President/CEO
Granite Construction Inc.

Malcolm Dougherty

(Ex-Officio)

Acting Director
California Department of
Transportation

Nuria I. Fernandez (TE 2013)

Senior Vice President
Major Programs Group CHRMHill

Rose Guilbault (TE 2012)

Vice President
American Automobile Association

Ed Hamberger (Ex-Officio)

President/CEO
Association of American Railroads

John Horsley

(Ex-Officio)*

Executive Director
American Association of State
Highway and Transportation Officials
(AASHTO)

Will Kempton (TE 2012)

CEO
Orange County Transportation
Authority

Michael P. Melaniphy

(Ex-Officio)

President & CEO
American Public Transportation
Association (APTA)

William Millar* (Ex-Officio)

President
American Public Transportation
Association (APTA)

Norman Y. Mineta (Ex-Officio)

Vice Chairman
Hill & Knowlton
Secretary of Transportation (ret.)

Stephanie L. Pinson (TE 2013)

President/COO
Gilbert Tweed Associates, Inc.

David Steele (Ex-Officio)

Dean, College of Business
San José State University

Paul Toliver* (TE 2013)

President
New Age Industries

Michael S. Townes (TE 2011)

President/CEO (ret.)
Transportation District Commission of
Hampton Roads

David L. Turney* (TE 2012)

Chairman, President & CEO
Digital Recorders, Inc.

Edward Wytkind (Ex-Officio)

President
Transportation Trades Department,
AFL-CIO

** Honorary

* Chair

^ Vice Chair

Past Chair

Directors

Hon. Rod Diridon, Sr.

Executive Director

Karen E. Philbrick, Ph.D.

Research Director

Peter Haas, Ph.D.

Education Director

Donna Maurillo

Communications Director

Brian Michael Jenkins

National Transportation Security Center of
Excellence

Asha Weinstein Agrawal, Ph.D.

National Transportation Finance Center

Research Associates Policy Oversight Committee

Asha Weinstein Agrawal, Ph.D.

Urban and Regional Planning
San José State University

Jan Botha, Ph.D.

Civil & Environmental Engineering
San José State University

Katherine Kao Cushing, Ph.D.

Environmental Science
San José State University

Dave Czerwinski, Ph.D.

Marketing and Decision Science
San José State University

Frances Edwards, Ph.D.

Political Science
San José State University

Taeho Park, Ph.D.

Organization and Management
San José State University

Diana Wu

Martin Luther King, Jr. Library
San José State University





**SAN JOSÉ STATE
UNIVERSITY**

Funded by U.S. Department of
Transportation and California
Department of Transportation



HOMELAND SECURITY UNIVERSITY PROGRAMS
TODAY'S RESEARCH & EDUCATION, TOMORROW'S SECURITY