

THE BOSTON REGION MPO'S VISION FOR THE SECURITY OF THE REGIONAL TRANSPORTATION SYSTEM

Security initiatives will be implemented to help protect the region from natural and human threats. Transportation infrastructure and its operation will be upgraded on an ongoing basis for the security of all users. Technologies will be employed to manage incidents, conduct emergency response, and support safe evacuations using various transportation modes.

To implement this vision, the MPO has developed a set of policy statements to guide its decision-making:

- Support designs and fund projects and programs that address security problems and enhance secure travel for all system users. This includes designs and projects that encourage motorists, public transportation riders, bicyclists, and pedestrians to share the transportation network securely.
- Support, through planning and programming, the installation, operation, upgrading, and timely maintenance of system infrastructure, including intelligent transportation systems (ITS), to provide for security.
- Participate in regional planning for security initiatives, such as evacuation and contingency measures, and homeland security.

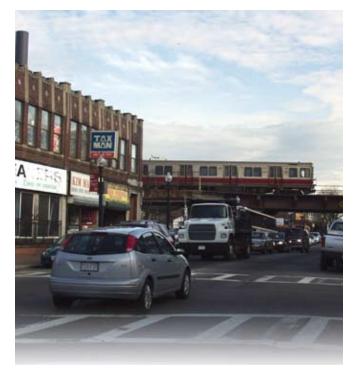
INTRODUCTION

Security is an important component of the metropolitan transportation planning process. Metropolitan planning organizations are charged with considering ways to increase the security of the transportation system for motorized and nonmotorized users. Security has been designated as a new, stand-alone planning factor

by SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), the current federal surface transportation legislation.

Security is defined as the freedom from intentional harm and tampering. Providing for security also includes planning for natural disasters. It sometimes overlaps with planning for safety. Security goes beyond safety and includes the planning to prevent, manage, or respond to threats to the region and its transportation system, such as those from terrorists that include arson, explosions, weapons of mass destruction, hostage situations, and tampering.

In the Boston Region MPO area, security must be provided on both the highway and transit systems. Approximately 1.2 million passengertrips occur on the MBTA system each workday for commuting to jobs or school or for traveling to services, entertainment, or shopping. Approximately 12.3 million vehicle-trips per day by automobiles, bus rapid transit, and buses are made on the region's highways. The transit and highway systems are both essential for normal, day-to-day transportation in the region, and for any emergency response or evacuation services.

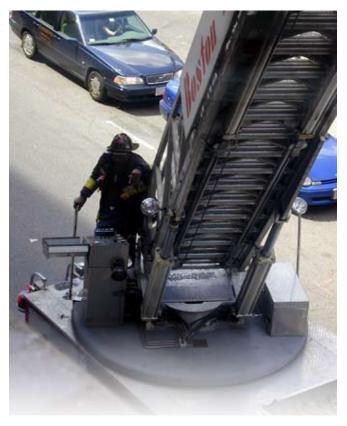


Some of the threats to the MPO area's transportation system include attacks on highway and transit viaducts, bridges, and tunnels, attacks on the various rolling stock and vehicle inventory such as buses, trolleys, subways, commuter trains, and commuter boats, and attacks on transit stations.

Planning for security for the region and in the region's transportation system is the responsibility of many agencies and entities. Their work in this area is interrelated and their responsibilities sometimes coincide, as security depends on extensive communication and coordination, in both the planning and execution of security measures. The Boston region benefits from federal and statewide security programs and from the involvement of regional and local entities. The MPO and many of its member agencies participate in a number of these planning activities that are conducted by other entities and have a role in approving funding for some security-related projects in the region. As security planning evolves, it is anticipated that the MPO will increasingly look at these issues within the context of its planning and programming. The regional model could be used to forecast mobility in the transportation system during an evacuation and to identify possible bottlenecks and other problems.

AGENCIES INVOLVED IN SECURITY PLANNING IN THE REGION Homeland Security

The U.S. Department of Homeland Security (USDHS) is an overarching agency whose responsibilities include security planning for the transportation system. Its mission is to protect the United States from attacks through border and transportation security; emergency preparedness and response; chemical, biological, radiological, and nuclear countermeasures; information analysis; and infrastructure protection. The USDHS provides guidance and support for transportation security through the National Response Plan, which establishes protocols for the federal government's coordination with state, local, and tribal governments, and with the private sector, for security events. This plan incorporates the best practices and procedures from all incident management disciplines, including emergency management, law enforcement, firefighting and first response, public works, and emergency medical services.



The USDHS administers the Transit Security Grant Program, which is funded by the Department of Homeland Security Appropriations Act of 2005. It grants money for security-related purposes for passenger rail, freight rail, and mass transit.

At the statewide level, the Massachusetts State Homeland Security Strategy, approved by USDHS in 2007, uses the National Response Plan guidelines to develop and maintain the Commonwealth's plan for all homeland security activities, such as regional preparedness, interoperability, and strategies for leading the various state agencies' management of security issues. These include agencies that are listed in the Regional Security section below. The state itself is divided into five Homeland Security Planning Regions and Advisory Councils (HSPRACs). They are:

- 1. Metro Boston Homeland Security Region
- 2. Northeast Region Homeland Security Advisory Council
- 3. Southeast Region Homeland Security Advisory Council
- 4. Central Region Homeland Security Advisory Council
- 5. Western Region Homeland Security Advisory Council

MPO cities and towns are included as members in all of the above HSPRACs except for the West. The work of these councils is discussed in more detail under the Massachusetts Homeland Security Planning Regions and Advisory Councils section below.

Regional Security

Regional security planning for the MPO area is conducted jointly on a multimodal basis by and among the federal, state, regional, and local agencies and entities listed below. The various law enforcement and other public safety agencies that have the most involvement in security planning are listed. As transportation agencies, several Boston Region MPO members are actively implementing security programs; the MPO participates in the planning and funding of some of these initiatives.

Entities Involved in Security Planning for the Boston Region

Federal

- Department of Homeland Security
- Federal Emergency Management Agency
- Federal Highway Administration
- Federal Motor Safety Carrier Administration
- Federal Transit Administration

- National Highway Traffic Safety Administration
- U.S. Department of Transportation

State

- Executive Office of Public Safety
- Executive Office of Transportation (EOT) includes EOT's Office of Transportation Planning and the Transportation Security Roundtable
- Homeland Security Regional Planning and Advisory Councils
- Interoperability Working Group
- Massachusetts Aeronautics Commission
- Massachusetts Emergency Management Agency
- Massachusetts Governor's Highway Safety Bureau
- Massachusetts Highway Department
- Massachusetts Homeland Security Executive
 Committee
- Massachusetts Port Authority
- Massachusetts Registry of Motor Vehicles
- Massachusetts State Police; includes the Criminal Intelligence Section and the Fusion Center
- Regional Transit Security Working Group
- UMassSAFE the multidisciplinary traffic safety research program of the University of Massachusetts

Regional

- Boston Region Metropolitan Planning Organization
- Cape Ann Transportation Authority
- Central Homeland Security Regional Planning and Advisory Council
- Massachusetts Bay Transportation Authority

- Metro Boston Homeland Security Regional Planning and Advisory Council
- Metropolitan Area Planning Council
- Northeast Homeland Security Regional Planning and Advisory Council
- Regional Transit Security Working Group
- Southeast Homeland Security Regional Planning and Advisory Council

Local

- Boston Emergency Management Agency
- Mayor of Boston's Office of Homeland Security
- Urban Area Security Initiative

The Federal Highway Administration (FHWA) provides guidance on planning for security, particularly for transportation agencies. FHWA advocates thinking about security in the terms of prevention and the "Four Ds of Defense": deter, deny, detect, and defend. FHWA promotes the installation of visible security measures (such as closed-circuit television cameras, intrusion alarms, and signs); routine security patrols; lighting improvements and obstruction removal; and the implementation of a controlled-lock and keysystem, fencing, or bollards to prevent unauthorized access to critical locations.

Several Commonwealth of Massachusetts agencies have public security responsibilities; these agencies include the Executive Office of Transportation and the transportation agencies under it, the Massachusetts State Police, the Executive Office of Public Safety, and the National Guard.

Massachusetts Emergency Management Agency

The Massachusetts Emergency Management Agency (MEMA), through its Operations Division, manages and coordinates emergency response efforts for the commonwealth. It also operates the state Emergency Operations Center (EOC), where it monitors emergencies statewide 24 four hours per day, seven days per week. The EOC serves as the command and control center for the commonwealth during an emergency.

MEMA's Emergency Management Team is prepared and trained by the Operations Division. Membership in the Emergency Management Team comprises federal, state, local, private, and volunteer organizations, which are represented at the EOC during an incident. The Operations Division is also responsible for updating and publishing the Governor's Emergency Notification Roster and assuring that MEMA maintains a high degree of preparedness. MEMA also has a Disaster Recovery Division, which helps with local disaster victims and guides cities, towns, and individuals through recovery efforts, as well as working with the Department of Conservation and Recreation on Flood Mitigation Programs. MEMA also provides coordination with the Federal Emergency Management Agency. MEMA also has a Nuclear Preparedness Department that is responsible for overseeing planning, training, equipment, and exercises to support a radiological emergency response for the population within the 10-mile emergency planning zone around nuclear power plants.

Massachusetts Homeland Security Planning Regions and Advisory Councils

The homeland security regions have each undertaken projects that relate to transportation security. In the Northeast Region, a study of critical infrastructure in 10 functional categories provided the Northeast Homeland Security Regional Advisory Council with a ranked assessment of critical infrastructure sites. The categories included transportation projects such as major highway interchanges. An assessment of personal-protective-equipment needs in the Northeast Region also identified the locations of many of the most important stationary hazardous materials and acknowledged that hazardous materials transported through the region also pose a risk.

In April 2006, the MBTA, the Executive Office of Public Safety, MEMA, and the regional homeland

security councils discussed coordination. The meeting resulted in a list of action items regarding coordination of transportation security measures among the homeland security planning regions, regional transit entities, and the MBTA. More recently, MEMA established evacuation-planning steering committees in association with the four homeland security advisory councils that contain parts of the MBTA network. These committees are working to continue the evacuation planning work started in Boston in coordination with the City of Boston's emergency preparedness department, the MBTA, and the Executive Office of Transportation.

Massachusetts Statewide Anti-Terrorism Unified Response Network

The Massachusetts Statewide Anti-Terrorism Unified Response Network (SATURN) is an information-sharing and first-responder network that enhances existing public security delivery systems. SATURN is a new initiative that brings together fire, emergency management, and police resources from every Massachusetts community, and provides them with a process for receiving and exchanging information in the face of a terrorist threat.

Commonwealth Fusion Center

The Commonwealth of Massachusetts maintains a fusion center at the State Police General Headguarters, located in the Town of Framingham. A fusion center is defined by the Global Justice Information Sharing Initiative as "a collaborative effort of two or more agencies who provide resources, expertise and/or information to the center with the goal of maximizing the ability to detect, prevent, apprehend and respond to criminal and terrorist activity." The Commonwealth Fusion Center (CFC) operates 24 hours per day, seven days per week, providing terrorist-related intelligence, and public safety and security-related information, to the state's local, state, and federal public safety agencies and private organizations involved with safety and security. Trained

analysts, each with a specialty in criminal and terrorist activity, furnish data, analysis, briefings, bulletins, threat levels, and risk assessments. In addition, the CFC also serves as a clearinghouse for information between the state's public and private safety and security agencies and organizations and the USDHS.

HIGHWAY SYSTEM SECURITY FOR THE BOSTON REGION

Highway system security is the responsibility of several traffic operations entities in the region that provide the command-and-control capability essential in a security event. They function as the centralized communications and coordination points for first responders from multiple agencies. These include MassHighway's Traffic Operations Center, the Central Artery/Tunnel Project's Operations Control Center. the Massachusetts Interagency Video Information System, the Boston Transportation Department's Traffic Management Center, and the Commonwealth Fusion Center, which is discussed above. In addition, law enforcement and security on the commonwealth's interstate highway system, which includes the Massachusetts Turnpike, is provided by the Massachusetts State Police.

Massachusetts State Police

The Massachusetts State Police conducts traffic law enforcement and provides security on the Massachusetts Turnpike and other state-owned roads. It provides security through a variety of techniques, including, but not limited to, routine patrols using marked and unmarked cruisers, helicopter overflights, tollbooth surveillance, and crash and criminal investigations.

Massachusetts Interagency Video Information System

The Massachusetts Interagency Video Information System integrates video transmissions from MassHighway, the Boston Transportation Department, the MBTA, the Massachusetts State Police, and private traveler-information services (SmarTraveler and SmartRoute Systems). The system supports the distribution of video to partner agencies' control centers as well as to a password-protected Web site.

MassHighway's Traffic Operations Center

MassHighway's Traffic Operations Center (TOC) is located in South Boston. The TOC's primary mission is traffic incident management throughout the commonwealth. The TOC is the headquarters for the application of ITS technology. From the TOC, reports on traffic incidents are relayed to the appropriate MassHighway district office, which assigns the necessary personnel and equipment required to abate the incident. The TOC also coordinates with the Central Artery/Tunnel Project's Operations Control Center, the Boston Transportation Department's Traffic Management Center, and the City of Boston's Emergency Operations Center. There are several different systems that the TOC uses for real-time information about the highway system, including ITS elements such as loop detectors, which are embedded in the roadway, and video cameras.



Other systems include remote-traffic-microwavesensor radar units; more than 100 variable-message signs in place around the state; a global positioning system to locate and monitor state police cruisers, snow plows, fire apparatus, ambulances, motorist-assistance CaresVans, and other emergency equipment; the central radio command system; and the Massachusetts Traffic and Emergency Response System. A back-up TOC is located at the Massachusetts State Police headquarters in Framingham.

The Central Artery/Tunnel Project's Operations Control Center

The Central Artery/Tunnel Project's Operations Control Center (OCC) is located in South Boston. The Massachusetts State Police's E-4 Administrative Unit, and MassHighway's relevant offices are located in the same building.

The OCC's 54 wide-screen, computer-controlled television monitors show the images from cameras that are trained on various parts of the Central Artery/Tunnel Project's roadways, listed below:

- Sumner Tunnel
- Callahan Tunnel
- I- 93 northbound from South Bay to Somerville
- I- 93 southbound from Storrow Drive Exit 26 to the South Bay
- Ted Williams Tunnel eastbound and westbound
- Prudential Tunnel eastbound and westbound
- Central Artery North Area (CANA) Tunnel southbound from the Tobin Bridge to points south and west
- Central Artery North Area (CANA) Tunnel northbound from I-93 northbound to the Tobin Bridge

The OCC performs many varied tasks, such as operating storm water pump stations, providing



and controlling communications, monitoring carbon monoxide (CO) levels, controlling ventilation for the tunnels mentioned above, working with the Massachusetts State Police E-4 Units on enforcement actions, such as vehicle towing and providing digital videos for motor vehicle accident investigations, and working with the Boston Fire Department on fire prevention and firefighting issues and activities.

The City of Boston's Traffic Management Center

The Boston Transportation Department (BTD) operates a Traffic Management Center (TMC), which is located in City Hall. The BTD's TMC monitors city traffic through the use of video cameras and embedded loop detectors. The TMC allows for real-time monitoring of traffic and incident management and provides integration and coordination, across jurisdictions, of emergency-response providers. The TMC is also capable of receiving and monitoring images from Central Artery Tunnel cameras and sharing that information with the Central Artery/Tunnel Project's Operations Control Center.

TRANSIT SECURITY

Background

The MBTA and the Cape Ann Transportation Authority (CATA) are responsible for providing security on the MPO area's transit network. Transit system security is a regional concern. Issues to be addressed in planning for transit security are the age of the system, the types of structures in the system, the vulnerability of those structures, the lack of redundant and/or alternate system components and/or capacity, and the increased requirements (over and above personal safety requirements) to provide for anti-terrorism security.

Some of the methods being used by the MBTA to address transit security in the Boston Region are listed below. Portions of several initiatives, such as the Station Management Program, and items related to station security and automated fare collection, have been or are included in—and receive funding through—the region's Transportation Improvement Programs.

MBTA Transit Police Department

The MBTA Transit Police Department, employing 250 uniformed and plainclothes police officers, carries out its primary mission of maintaining security within the MBTA transit system. The MBTA police accomplish this through mobile, foot, and K-9 (canine) patrol teams on both scheduled and random patrols, all of which serve to maintain a high degree of visibility within the system. The Blue, Green, Orange, and Red Lines share four police substations, 15 police kiosks, and 115 police officers; additional surface patrols provide support for buses and commuter rail.

MBTA Transit Police Department's Special Operations Team

The MBTA Transit Police Department's Special Operations Team (SOT) is the MBTA's version of a SWAT (Special Weapons and Tactics) team. The SOT has eight specialty vehicles, which



include an SOT rapid-response vehicle, a bomb disposal truck, radar units, and an incident command vehicle.

Secure Stations Initiative

The Secure Stations Initiative is one of the MBTA's programs for enhancing its systemwide operational security by improving its communications and security systems. This is a requirement of both the Massachusetts State Homeland Security Strategy and the Regional Transit Security Strategy. The Regional Transit Security Strategy, described below, was developed by the Regional Transit Security Working Group.

Any new construction, reconstruction, enhancement, or modernization project will include installation of, or upgrades to, the following communications systems:

- Closed-circuit television
- Public-address system
- Variable-message sign
- Security intrusion detection

- Burglar alarm
- Fire alarm
- Police call box

The rapid transit stations' public-address systems currently provide travel information. A recorded security message from the MBTA general manager educates transit passengers about their role in maintaining system security; passengers are urged, "If you see something, say something."

MBTA Security Cameras

The MBTA has 402 security cameras in the subway system and is adding 186. The cameras are monitored from a number of different locations, including the MBTA's OCC, the Transit Police Department, and MEMA's Emergency Operations Center in Framingham.

In addition, the MBTA has embarked upon a program of installing security cameras in new buses. There is also a strong surveillance component the Hub Monitoring Stations Project, to



the MBTA's Automated Fare Collection Project, and the Station Management Program Project, discussed in more detail in Chapter 7, Safety.

MBTA Station Security Program

In order to increase the overall safety and security of the system, the MBTA spent \$7 million in fiscal year 2007 for enhancements under the Station Security Program. These enhancements include items such as new locks and doors on station utility and communications rooms.

MBTA Parking Facilities

Due to their proximity to operating subway and commuter rail stations, parking garages, such as the ones at the Red Line's Alewife and Quincy Adams Stations and the Route 128 Amtrak and commuter rail station, present additional security concerns to the MBTA over and above the ones already presented at a typical station. Special attention is paid to these facilities by the MBTA Transit Police Department. In addition, parking facilities receive additional scrutiny under the Secure Stations Initiative through the installation of closed-circuit television cameras, public-address systems, variable-message signs, security intrusion detection, alarms, and police-call-box systems.

Interoperability

One of the issues facing the MBTA in its emergency-response planning is that of interoperability. Interoperability is defined as the ability of radio equipment belonging to one department's emergency first responders to communicate with that of another department. Information on interoperability was also discussed in Chapter 7, Safety.

MBTA Operations Control Center

The MBTA operates and maintains an operations control center (OCC) in Boston for its rapid transit, light rail, and surface bus operations. The MBTA's OCC is capable of handling data acquisition for both infrastructure and traction power control, voice communications by either telephone or radio, centralized traffic control, automatic vehicle-identification surveillance, and control of rail traffic. This facility is located in a theater-style room that allows the wall-sized display board to be viewed by the operations supervisor, emergency control personnel, and staff in the attached conference room. The OCC interfaces and shares information with MassHighway's Traffic Operations Center, the Central Artery/Tunnel Project's Operations Control Center, the Boston Transportation Department's Traffic Management Center, the Massachusetts Interagency Video Information System, and the Commonwealth Fusion Center.

Cape Ann Transportation Authority Security Measures

The Cape Ann Transportation Authority (CATA) provides bus and paratransit services in the MPO-area communities of Gloucester, Essex, Ipswich, and Rockport.

CATA is implementing the following security measures:

- Security cameras installed around the transit operations, maintenance, and bus storage building
- Training for bus drivers on maintaining secure bus operation, including identification of suspicious articles or behavior
- Distribution of security material prepared by the MBTA
- Provision of an emergency message, "Call Police," to be displayed on the bus destination sign in the event of an incident

Amtrak Police

Amtrak provides regional transit security and law enforcement through the Amtrak Police. The Amtrak Police's 342 police officers, most of whom are stationed within the Northeast Corridor, Amtrak's busiest, provide security at Boston's South and Back Bay Stations and Westwood's Route 128 Station. The Amtrak Police is also responsible for security on 300 trains per day serving approximately 540 stations and operating on more than 22,000 miles of rail in 46 states.

Regional Transit Security Working Group

Any transit agency wishing to receive funding through the federal Transit Security Grant Program is required to participate in a Regional Transit Security Working Group (RTSWG). The primary purpose of the RTSWG is to develop a Regional Transit Security Strategy, the development of which is also required to receive funding under the Transit Security Grant Program. In early 2007, the USDHS granted the MBTA \$24.37 million, the largest award the MBTA has ever received, to enhance the security of its trains and buses. The MBTA will use the money to improve video surveillance, start a pilot program to expand its biological, nuclear, radiological, and explosive material detection systems, and add additional surveillance cameras.

The Executive Office of Public Safety chairs the RTSWG, and the MBTA and MPO are members. The MPO brings a regional planning perspective to the work of the group and will also be called



upon to participate in the funding of regional transit-security initiatives and processes.

Operation Lifesaver

Operation Lifesaver is an educational program created to prevent collisions, deaths, injuries, and crashes at railroad grade crossings and along railroad rights-of-way, including those possibly initiated through terrorist activity. Information on Operation Lifesaver was discussed in Chapter 7, Safety.

FREIGHT SYSTEM SECURITY

Many security measures are already in place for the region's freight system, and additional planning is underway. Transportation and public safety agencies and entities mentioned earlier in this chapter, as well as others discussed in this chapter, are participating in this undertaking.

Truck Security

The measures that provide security on our region's highways also provide security for the freight system. In particular, the Massachusetts State Police, through patrol and enforcement activities, provide security to the trucking industry. Another source of trucking security is MassHighway's permitting activities, which are conducted from its Commercial Vehicle Center in Milford.

Permitting activities by the Milford Commercial Vehicle Center consist of issuing permits to trucks to operate temporarily at various overloaded levels; the setting of requirements for escorts, signs, and/or flags; the determination of required liability insurance coverage; and the setting of restricted travel times and locations. The Massachusetts State Police Commercial Vehicle Enforcement Section (CVES) enforces permit requirements.

Using a combination of law and permit enforcement, education, roadside inspection, and crash investigation techniques, troopers from the CVES monitor the security and the mechanical and operational safety of commercial vehicles (trucks) that use the state's public roadway system. The CVES mission also includes the enforcement of hazardous-materials regulations.

Port Security

The requirements for providing security for the seaports of Massachusetts and the rest of the country are contained in the Maritime Transportation Security Act (MTSA). This federal legislation, passed in 2002, was created to protect U.S. seaports and waterways from terrorist attacks.

In addition, the International Ship and Port Facility Security Code provides guidance on minimium security arrangements for agencies guarding ports, the ports themselves, and the ships using those ports.

Under MTSA, seaport facilities and the vessels that use them are obligated to create security plans that may include provisions such as the establishment of screening procedures, patrols, restricted areas, personnel identification procedures, access control measures, and the installation of surveillance and monitoring equipment.

In addition, MTSA contains a provision requiring that Area Maritime Security Committees be created in all U.S. seaports to ensure the coordination of all security efforts by, and on behalf of, local, regional, state, and federal agencies, members of the maritime industry, and members of the public at large.

Other MTSA provisions include requirements for the creation of:

- A Maritime Transportation Security Plan
- A Vessel and Facility Security Plan
- Transportation security cards
- Background checks
- Submission of crew and cargo manifests

Other port security provisions, such as the Container Security Initiative and the Customs-Trade Partnership Against Terrorism, allow for the inspection of cargo destined for U.S. seaports to occur at the foreign port of origin.



The U.S. Bio-Terrorism Act requires that information on hazardous shipments be provided two hours prior to arrival at a border or seaport. This is more stringent than U.S. Customs requirements of one hour in advance of arrival.

The Transportation Worker Identification Credential program has rules for over 750,000 port owners and operators, port employees, longshoreman, mariners, truckers, and any others needing access to secure areas of seaports and vessels. This USDHS security process is administered by the Transportation Security Administration, and entails detailed background checks. Successful applicants are issued a "smart card" containing their name, photograph, an expiration date, and a unique serial number, along with an integratedcircuit chip storing a fingerprint template, a unique personal identification number, and a redundant unique identifier.

In the last four years, the Port of Boston has received over \$8 million in grants from the USDHS. This money has been used, along with Massport funds, to install surveillance cameras and other security-enhancing equipment, such as, publicaddress systems, variable-message signs, security intrusion detection, alarm systems, and police-call-box systems. However, Massport received only \$150,000 in 2007 for the Port of Boston, even though it has been included in a higher risk category.

The recently enacted Safe Port Act of 2006 provides for continued funding for port security grants. It is a \$6.7 billion spending bill that will provide comprehensive cargo chain security for all freight brought into the U.S. by sea. This will be accomplished by scanning 100 percent of imported shipping containers for radiation before they are loaded, which is the primary feature of this bill.

Rail Security

Hazardous Materials Movement by Rail

It is relatively safer to transport hazardous materials by rail than over the roadways by truck. Therefore, in the U.S. a large percentage of hazardous materials is transported by rail. The Hazardous Waste Common Carrier Agreement, which was created by the Interstate Commerce Commission (now the Surface Transportation Board), the U.S. Department of Transportation, the Nuclear Regulatory Commission, common law, and other sources, ensures that rail operators do not refuse to transport hazardous materials. This requirement, which covers radioactive nuclear waste and hazardous waste transported through heavily populated areas, creates considerable security challenges for municipalities along rail routes.

Airport Security

Massport operates Boston's Logan International Airport, Bedford's Hanscom Field, and the Worcester Regional Airport. The Massachusetts Aeronautics Commission is in charge of regulation and oversight of the other public airports in Massachusetts, including general aviation facilities located in the MPO area, such as Beverly Municipal Airport, Marlboro Airport, Norwood Memorial Airport, and Stow's Minute Man Air Field. Together, Massport and the Massachusetts Aeronautics Commission are responsible for providing security to these airports and their users.

Massport has been recognized for leadership in the identification and use of cutting-edge airport security measures at Logan Airport. They include explosive detectors, infrared cameras, a 10-foot concrete perimeter security wall, the institution of a 250-foot exclusionary zone in Boston Harbor, and the presence of State Police troopers who are specially trained in the use of automatic weapons and other counterterrorism techniques. In addition, there are several hundred Transportation Security Administration personnel located at Logan to screen luggage and passengers before they enter aircraft. Future plans include adding security features to Massport's Logan Airport Parking Management System that would require screening passengers and luggage prior to their entry into any of the airport's terminals.

At airports overseen by the Massachusetts Aeronautics Commission, recognized nationally for small-airport security work, innovative techniques such as identification badges and aircraft registration database programs provide for the continued security of airport users.

EVACUATION PLANNING

In some emergencies, evacuation of the population in some or all parts of the Boston region may be called for. To date, two evacuation plans have been developed in the region, and are discussed below.

The City of Boston's Evacuation Plan: Operation Exodus

The City of Boston's emergency evacuation plan is called Operation Exodus. The plan will use the MBTA system, local law enforcement, and the other regional public safety agencies to evacuate any area of the city that has been affected by a large-scale emergency to areas outside of the city proper. Cooperating entities include the Transportation Security Roundtable, the MBTA, the Executive Office of Public Safety, MassHighway, the Massachusetts State Police, the City of Boston, the Federal Emergency Management Agency, and the Massachusetts Emergency Management Agency.



Other Evacuation Planning

MEMA has formed evacuation planning steering committees in association with the three homeland security advisory councils within the MBTA network and the Metro Boston Homeland Security. They are developing evacuation plans for their regions in coordination with Boston, the MBTA, and the Executive Office of Transportation.

MAPC Natural Hazard Mitigation Planning: Evacuation Routes

MAPC has been working with 75 of its members, including several communities in the Inner Core Committee (one of the eight MAPC subregional groups), to create Natural Hazards Mitigation Plans. These plans, which are produced under the Federal Emergency Management Agency's Pre-Disaster Mitigation program and administered in Massachusetts by the Massachusetts Emergency Management Agency and the Department of Conservation and Recreation, have been prepared for 29 communities in the Inner Core Committee, South Shore Coalition, and North Shore Task Force subregions. MAPC is currently working on plans for 46 additional cities and towns in the five remaining subregions: the North Suburban Planning Council, the Minuteman Advisory Group on Interlocal Coordination, the MetroWest Growth Management Committee, the SouthWest Advisory Planning Council.

With assistance from MAPC, the communities have developed draft plans with substantial relevance to transportation, as they include databases and geographic information system maps containing layers of critical facilities and infrastructure with areas at risk from natural hazards such as flooding, hurricanes, geologic hazards, and winter storm damage. Many of the mitigation projects identified in these plans involve improvements to roadway-related drainage that would



reduce flooding impacts in these communities. These plans can also be useful in determining which evacuation routes would be affected by a natural disaster.