







# SECURITY

# **Current Activities and Efforts**

SAFETEA-LU legislation has placed an increased emphasis on security and security planning in all Regional Transportation Plans. Recent events have highlighted the need to address emergency response procedures as well as general security provisions. The transportation system is vitally important to the response to emergency situations as well as a potentially vulnerable asset. Current planning efforts have usually focused on evacuation plans and routes through local emergency planning agencies and directors. This chapter highlights some of the current activities ongoing in the region related to security as well as recommendations for further improvement.

## Homeland Security Councils

Communities in the Montachusett Region are members of two of the Commonwealth's Regional Homeland Security Councils (HSCs). The 17 communities of Worcester County are part of the Central Regional Homeland Security Council while the remaining five communities located in Middlesex County (Ashby, Ayer, Groton, Shirley and Townsend) are part of the Northeast Region Homeland Security Council.

The major responsibilities of the Advisory Councils are to develop regional, multi-disciplinary Homeland Security Plans so that cities and towns may better work together on preparing for and recovering from large scale emergencies, and to oversee all grant program expenditures on behalf of their applicable regions.

Each Advisory Council is accessible to mayors and managers throughout the Commonwealth to provide municipalities with valuable emergency management resources including:

- Shelter supplies
- Emergency equipment like flood water pumps, light towers, and barricades
- Training for first responders
- Interoperable communications support, and much more

Through the HSCs efforts have been made to improve the coordination and communication between public safety officials. Funding for projects, plans and equipment have been allocated through the HSCs to help communities meet their needs. Metropolitan Area Planning Commission (MAPC) in Middlesex County and Central Massachusetts Regional Planning Commission (CMRPC) in Worcester Count act as fiduciary agents for the Northeast and Central Regional Homeland Security Councils.

The Regional Strategic Plan for the Central Region HSC cites five specific goals.

- Enhance the ability to assess risk and prevent future terrorist attacks or critical incidents.
- Improve the ability to collect, analyze, disseminate, and manage key information.
- Improve preparedness by enhancing regional coordination.

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- Improve the ability of first responders to communicate at the scene of a terrorist attack or other critical incident.
- Improve the ability to recover from a terrorist attack or other critical incident.

The Regional Advisory Council includes representatives from these areas: Law Enforcement, Fire Services, Public Safety Communications, Emergency Management, Emergency Medical Services, Public Health, Hospitals, Public Works, Regional Transit Authority, Correctional Services, Local Government Administration, Executive Office of Public Safety, Massachusetts Emergency Management Agency.

## **MRPC** Activities

The roles of the MPOs in the planning and implementation of transportation security projects is still evolving. The MRPC has been involved with local Emergency Planning Committees and or Directors to develop and assist in the preparation of various safety/security planning efforts.

The following outlines some of the studies recently undertaken.

## Regional Special Need Shelter Study (2010)

This study was undertaken through District Local Technical Assistance (DLTA) and a request from the Montachusett Regional Emergency Planning Committee (MREPC).

The recent Ice Storm of December 2008 highlighted several issues related to emergency shelters throughout the Montachusett Region. In many communities, long term shelters were established and maintained by local officials based upon established emergency management plans. However, one area that became a concern or issue to the three communities of the Montachusett Regional Emergency Planning Committee (MREPC), i.e. Fitchburg, Leominster and Lunenburg, was the sheltering of individuals with special needs or requirements. These individuals were, for the most part, ambulatory and relatively self sufficient. Their needs or special care requirements did not necessitate their movement to a hospital or medical facility but their needs were greater than those typically available at a general public shelter. Because of this concern MREPC initiated a review of area facilities to determine the possibility of establishing a Regional Special Needs Shelter. Utilizing the DLTA program, the MRPC was retained to assist the MREPC with the analysis for just such a facility.

The methodology developed for this study was determined as follows:

1. Determine size of population within Fitchburg, Leominster and Lunenburg that might make use of a Special Needs Shelter.

- 2. Determine or estimate facility size needs to serve target population.
- 3. Review potential facilities within the study area to meet determined needs.
- 4. Identify potential facilities and shelter needs.

### Pre-Disaster Mitigation Plans (PDM) (2008)

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The Montachusett Regional Planning Commission (MRPC) has assisted in the development of a Natural Hazard Pre-Disaster Mitigation Plan each town in the region. They were prepared for the Federal Emergency Management Agency (FEMA) to comply with the Disaster Management Act of 2000 and funded by the Federal Emergency Management Agency through the Massachusetts Emergency Management Agency (MEMA) and the Massachusetts Department of Conservation and Recreation.

The purpose of the plan is to identify natural hazards and specific locations where the community is vulnerable to these hazards, and to establish a mitigation strategy to reduce the risks associated with these hazards. These plans were created to achieve the following goal:

To reduce the loss of or damage to life, property, infrastructure, and natural, and economic resources from natural disasters.

The preparation and implementation of these Natural Hazard Pre-Disaster Mitigation Plans will do the following.

Make funding sources available to implement the mitigation initiatives when eligible.

Support pre- and post-disaster decision making efforts. Mitigation is directly related to disaster recovery. This plan emphasizes actions to be taken now to reduce or prevent future disaster damages. This plan helps the Town by developing policies and programs in the "calm before the storm." If the actions identified in this plan are implemented, the damage that is left in the aftermath of future events can be minimized, thereby easing recovery and reducing the cost of repairs and reconstruction.

*Ease the receipt of post-disaster state and federal funding* because the list of mitigation initiatives is already identified.

*Reduce vulnerability to disasters* by focusing limited financial resources to specifically identified needs.

Connect hazard mitigation planning to community planning where possible.

## Emergency Response Road Network Report (2008)

It was brought to attention during the development of the 2007 RTP that several communities expressed concern with emergency vehicle routes and the affect problems with local infrastructure, i.e. bridges, pavement conditions, etc. have on response times. The purpose of the *Emergency Response Road Network Report* was to address these concerns and is the first phase of a broader report on emergency transportation infrastructure in the region done in 2009.

Two main goals of this preliminary report were to recognize routes in the Montachusett region which are heavily traveled by emergency response and transport vehicles and to assess the conditions along these routes which link responders to emergencies and municipalities to the

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hospitals that typically serve them. Emergency responders throughout the region were surveyed to address concerns in the transportation system affecting their ability to rapidly access area hospitals. Other information considered in the report included heavily traveled emergency transport and access routes, infrastructure conditions along these routes and known dangerous intersections throughout the region. The principal intention of assessing these emergency routes is for the purpose of including the data in our transportation evaluation criteria (TEC). TEC is data that is considered when putting together documents such as the Transportation Improvement Program (TIP), an annual prioritized listing of transportation and transit projects in the region proposed for implementation during future federal fiscal years.

## Previous studies include:

Fitchburg/Leominster Flood Hazard Planning Assistance All Hazard Mitigation Plan Hazardous Materials Study Safety and Security Planning (MOU between MART and MREPC)

## **RTP Compilation**

Within the various chapters of the RTP, security issues were identified where appropriate. The following are highlights from those chapters.

### Infrastructure

The proper maintenance of the road network is extremely critical to the safety and security of the Region both in terms of the ability for emergency personnel to respond to situations and as a means for the movement and evacuation of individuals. Poorly maintained roads and bridges can affect safety and security within an individual community as well as on a regional basis. Restrictions on weight limits or closed bridges impact emergency response times, can cause extensive detours and result in loss time when in many cases time and speed is critical.

Within the Infrastructure chapter of this RTP, the condition of the bridges within the Montachusett Region are discussed and highlighted. Some 47 structurally deficient bridges have been identified and prioritized for improvement. One factor in the prioritization process is the bridges location on a potential evacuation route. Those bridges on roads with significant traffic volumes are important to the movement of people and emergency vehicles throughout the Region.

In addition to the condition of the Region's bridges, the condition of the roads themselves can impact response times and vehicular movement. Poor pavement conditions slow traffic, cause vehicle damage and limit mobility.

The dams within the Region can also affect the ability to move people as well potentially impact their safety and security. Dams located in proximity to major evacuation type routes present a possible problem if a breech should occur. Any breech at these facilities, whether man made or





not, could destroy not only residential and commercial property but also the road network, either by washing out road segments or damaging bridges.

Therefore, it is recommended that increased emphasis be placed on improving, repairing and replacing those bridges, roads and dams that serve as major community and regional evacuation routes.

# <u>Transit</u>

Precautions have been undertaken by the Montachusett Regional Transit Authority (MART) to ensure safety of passengers and employees since September 11, 2001.

Current practices/initiatives include:

- Video camera installation in the Fitchburg Commuter Parking Garage, the MART Intermodal Transportation Center (ITC) in Fitchburg and the North Leominster Commuter Train Station. Monitoring screens are observed by employees. Cameras are able to view happenings inside and outside of the facilities. Cameras can also view the commuter rail platforms.
- Use of lockers at the Intermodal Transportation Center is no longer permitted.
- Signs have been posted that "luggage, backpacks, etc. are subject to search".
- Security guards are also on duty at the Intermodal Transportation Center and Commuter Parking Garage.
- Transit Watch brochures are displayed at the Ticket Booth of the Intermodal Transportation Center for passengers. Brochures explain to passengers what to do if they spot unattended packages and suspicious behavior.
- Identification badges and parking stickers have been issued to all employees of the transit authority as well as their tenants.
- Continued expansion of the Automatic Vehicle Locator (AVL) system on fixed route and para-transit vehicles. An expanded AVL system can be integrated with other ITS components to improve emergency response to situations.

Overall, adequate funding for security improvements remains a major concern.

## Freight Movements

## Freight Railroad Security

The Federal Railroad administration immediately after the 9/11 attacks worked to create a Freight Railroad Security Plan.

The following excerpt was obtained from the Association of American Railroads.

"The Board of Directors of the Association of American Railroads (AAR) — made up of the CEOs of North America's major freight railroads and Amtrak — has established the mandate to ensure that the railroads would be more secure each day. Using CIA and





national intelligence community best practices, five critical action teams — with the active involvement of some 150 railroad industry, security and intelligence personnel — were established to scrutinize different aspects of the railroad system:

- Hazardous materials
- Operations
- Infrastructure
- Information technology and communications
- Military movements

Their analysis examined and prioritized all railroad assets, vulnerabilities and threats, and then identified countermeasures. Throughout this process, the AAR continued to work with the federal government and solidify links to law enforcement and security agencies. Using national intelligence community "best practices," the Railroad Security Task Force developed a comprehensive risk analysis and security plan, which includes:

- A database of railroad critical assets;
- Assessments of railroad vulnerabilities;
- · Analysis of the terrorism threat;
- Calculations of risk;
- · Identifications of countermeasures to reduce risk;
- Definition of alert levels;
- Delineation of actions to be taken at each alert levels; and
- Functions of the AAR operations center and railroad alert network.

The plan establishes four alert levels and describes progressive series of actions to thwart terrorist threats to railroad personnel and facilities. It also includes additional countermeasures that will be applied in the areas of operations; information technology and communications; and police.

- Level 1: New Normal day-to-day operations
- Level 2: Heightened Security Awareness

• Level 3: A Credible Threat of an attack on the Unites States or the railroad industry

• Level 4: A Confirmed Threat of attack against the railroad industry or actual attack in the United States (implemented up to 72 hours and reevaluated)

Actions taken by the railroads since September 11 include:

• After consulting with federal security agencies, declared "Red Alert" status for 72 hours beginning with the start of U.S. military action in Afghanistan;

• Increased employee security awareness and training to ensure that over 200,000 railroad employees became the eyes and ears of the railroad industry's security;

• Compared employee records to FBI terrorist lists;





- · Created new position of Executive Director of Security at the AAR;
- Established a 24/7 AAR operations center to coordinate industry-wide rail freight security;
- Increased tracking and inspection of certain hazmat and munitions movements;
- · Increased security of railroad physical assets;
- Increased random inspections;
- Conducted spot identification checks;
- Increased coordination with Military Transportation Management Command;
- · Increased cyber security procedures;
- Implemented encryption technology for selected data communications.

Through the AAR, freight railroads remain in constant communication with the U.S. Department of Transportation security personnel, the FBI, the National Security Council, and state and local law enforcement officers. The industry also has in place plans to respond immediately to any threats to our transportation network." (Source: www.aar.org)

Based upon prior planning experiences in identifying hazardous materials entering the Region via rail line, it is recommended that reporting procedures between the rail companies and local and state officials be expanded and improved. Proper emergency planning depends upon accurate data and in order to act instead of react, improved reporting on the transportation of hazardous materials is essential.

# **Aviation**

Review of data related to airport use at the three public airports in the Montachusett Region, Fitchburg Municipal Airport, Gardner Airport and the Sterling Airport, all indicated an increase in military aircraft operations from the figures reported in the 2003 Montachusett RTP.



		Fitchburg		Gardner	Gardner		Sterling	
		2006	2010	2006	2010	2006	2010	
No. of Aircraft Based		138	123	29	17	78	78	
Type of Aircraft	Single Engine	127	111	27	15	32	29	
	Multi Engine	2	3	1	1	1	2	
	Ultra lights	2	2	1	1	3	3	
	Jet	2	1	0	0	0	0	
	Helicopter	2	4	0	0	1	0	
	Gliders	3	2	0	0	41	44	
Avg. Aircraft Operations		515/day	170/day	100/week	101/week	142/day	135/day	
Type of Operation	Local General Aviation	2%	64%	<1%	23%	<1%	71%	
	Transient General Aviation	56%	32%	23%	76%	71%	28%	
	Air Taxi		3%		<1%		<1%	
	Military	43%	<1%	77%	1%	29%	<1%	
Other						Helipad 50 ft x 50 ft Glider Activity	Helipad 50 ft x 50 ft Glider Activity	

### Comparison 2006 vs. 2010 Airport Characteristics

With the increase in military aircraft operations at all three Montachusett airports, additional issues related to security may need to be investigated. To address possible issues, interaction between the airport and appropriate state and military personnel may be necessary.

Areas of consideration may include:

- Video surveillance of site perimeter
- Twenty-four hour on site security and monitoring
- Security at main entrance to airport
- Fencing of perimeter where needed

# INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Intelligent Transportation Systems, or ITS, utilizes advance technology to improve different aspects of the transportation network, such as safety, mobility, efficiency and productivity. Technology can run the gamut from wire and wireless based systems to data storage and retrieval to web based applications and global positioning systems (GPS).

The following discusses ITS in the Montachusett Region both planned and in effect.

# Statewide ITS

The States Highway Operations Center (HOC), located in South Boston is the most developed and advanced component of ITS in the commonwealth. Through monitoring live camera feeds from throughout the MassDOT road network the HOC manages emergence response events by notifying state police and other first responders of an emergency related event. The HOC also manages all variable message signs on MassDOT roadways and supervises a more complex ITS system that is critical to the operation of the Central Artery.

## **Regional ITS Architecture for Central Massachusetts**

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) previously issued guidance based upon legislation contained in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) regarding the implementation and use of ITS and the need for ITS plans. The development of the regional ITS plans for Massachusetts was undertaken MassDOT. To accomplish this, the state was divided into four regions based upon the existing 13 MPO's. The Central Massachusetts region includes both the MRPC and the Central MA Regional Planning Commission (CMRPC).

The Regional Intelligent Transportation Systems (ITS) Architecture Implementation Plan was completed in 2005. The plan is essentially a framework which defines ITS uses and their interconnections. The "architecture" represents the relationship between transportation-related systems and institutions. "A regional ITS architecture, therefore, describes how a set of agencies will share responsibility and information for the vast array of technologies and systems deployed in a region". Hence, the architecture serves many purposes, including improving interagency coordination, cost savings for transportation operations, and better services to the traveling public.

The Regional ITS Architecture will be formally revisited on the same cycle as the Regional Transportation Plan updates (currently every three years), with timing that allows the architecture update to take a revised RTP into consideration. In this way, it is expected that the revised architecture can incorporate new ideas and/or projects that are included in an updated RTP. MRPC is involved in the Central Massachusetts Regional ITS Planning and Coordination Committee (RIPCC) and Stakeholder Group which played a major role in developing the original plan and recently has updated it.

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Upon the original development of the Regional ITS Architecture for Central Massachusetts a needs assessment was conducted in which National ITS Architecture themes were customized for the Central MA region. This assessment included a comprehensive inventory of local ITS-related initiatives. From the needs analysis, a number of general needs and major themes were identified. The following needs identified serve as a good summary of ITS in the region and functioned as a basis on which the architecture was formed.

## **Regional Needs**

- Congestion Management Recurring congestion on roadways was identified as an issue throughout the region, especially on major routes like I-290 and Route 2. The extent of this congestion may be reduced, however, by providing information to motorists before they reach congested areas. ITS was identified as a potential means for reducing congestion by providing information to motorists about delays and allowing them to adjust their travel accordingly.
- Transit Efficiency Coordination of transit and paratransit services and providing service to more rural parts of the region were identified as challenges to the transit providers in the region. ITS was identified as a potential means of improving transit service by providing a greater level of customer information, by improving routing, scheduling, and dispatching procedures, and by increasing ridership and farebox revenue.
- Efficient Use of Existing Infrastructure The existing transportation infrastructure in the region is showing its age, with demand often straining the capacity of the transportation network. This includes the roadway network as well as the rail network used for passenger and freight service. Increasing capacity through the construction of new infrastructure is one means of addressing this issue. In cases where infrastructure expansion is not feasible, however, capacity may be improved through the use of ITS, which allows the existing infrastructure to be used more efficiently.
- Economic Development Attracting residents and businesses to the region was identified as a regional priority. An efficient transportation network is seen as essential to this goal. This includes freight access via rail and interstate highways as well as commuter access via roadways and public transportation. ITS was identified as a potential means of improving the efficiency of the transportation network, as well as a means of raising public awareness of transportation alternatives in the region.

## Major Themes

 Transit Demand and Revenue – The transit authorities in the region face the challenge of providing service to a distributed and increasingly elderly population while needing to rely more heavily on farebox revenue to fund their operations. As such, the RTAs seek to improve the efficiency of their operations and to boost ridership on their systems. The application of ITS is one means of addressing these goals.

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- Traffic Congestion and Traveler Information As the region is served by a limited number of major highways, congestion on any one of these roadways has a significant impact on the region. Providing traffic information to travelers will allow them to make better decisions on when and how to travel. Traveler information can also be used to raise awareness of other transportation options, such as transit. Providing this information requires a means of disseminating this information, either pre-trip or en-route, as well as a means of coordinating information sharing among the various agencies in the region.
- Use of ITS Data The ITS systems already in place in the region offer a significant resource for transportation data. This includes both real-time data that can be used for operations, as well as archived data that can be used for planning purposes. With further implementation of ITS, the data available will continue to increase. Considering these uses for ITS data in the architecture process offers an opportunity to take advantage of existing and planned information sources in the region.

# Source: "Regional ITS Architecture for Central Massachusetts" Final Report, March 2005

# Security Related Architecture

Identified with the "Regional ITS Architecture for Central Massachusetts" Final Report, the use of ITS architecture for emergency management practices was discussed. Several programs were identified in the Implementation Plan as well as the agencies involved. The elements of the program relating to security included:

- 1. Emergency Management Coordination This program area covers the extension of the Event Reporting and Video Integration Systems to support emergency management functions for the transportation systems in the region.
  - (a) Emergency Management Network This initiative extends the functionality of the Event Reporting and Video Integration Systems to support emergency management functions. The participating agencies are those with roadway, transit, or emergency management functions. In emergency management, coordination among agencies may often require the transmission of sensitive or privileged information. This includes information that must remain restricted due to security concerns and that must be managed more securely. This initiative addresses this need by adding a secure layer to these systems, allowing sensitive information to be accessible only to users with appropriate privileges.
- 2. CAD/AVL for Emergency Management This program area provides CAD/AVL systems for managing emergency vehicles.
- 3. Traffic Signal Preemption This program area covers signal preemption or priority for emergency vehicles operated by Local City/Town/County Public Safety departments.
- 4. Transit Safety This program area covers the deployment of emergency call boxes at transit facilities. This addresses the planned emergency call box elements in the architecture, as well as the interfaces with the emergency call centers. Locations for deployment will include bus stops, terminals, and parking facilities.

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It is recommended that ITS strategies continue to be evaluated as outlined in the "Regional ITS Architecture for Central Massachusetts" Final Report as projects, both highway and transit, are developed.

# Implementation Plan Recommendations

- Of the initiatives in the Implementation Plan, the four "near-term" multi-agency initiatives identified by the Guidance Committee are vital for working towards the integrated transportation system envisioned by the architecture. Although not as urgent in the short term, the remaining "future" multi-agency initiatives are also important in that they provide the foundation for interagency coordination throughout the region.
- Formal agreements should be established for the interagency interfaces identified in the architecture. This includes existing interfaces as well as new ones. Existing informal agreements should be formalized in order to ensure that their benefits are maintained. This can be achieved through new agreements that document specific existing working arrangements. Operational agreements for new interfaces should be drawn up as these new interfaces are established. Proper documentation of the arrangement will be easiest in the planning stages and will facilitate implementation and operation in the long term.
- ITS architecture consistency should be incorporated into the existing MPO transportation planning process. While the process outlined in the Implementation Plan identifies times when the consistency issue should be addressed, consideration of the architecture throughout the project development process will ensure a satisfactory outcome.
- The Regional ITS Architecture should be updated to reflect the changing needs and priorities of the region. To make this work with the existing transportation planning process, it is recommended that the architecture be updated regularly to reflect the needs identified in the Regional Transportation Plans in the region. In addition, informal updates to ensure consistency with newly proposed projects should be done on an as-needed basis.
- The agencies and organizations that were represented on the Guidance Committee, as well as other relevant ITS stakeholders, should continue to meet and remain involved, not only in the maintenance of the architecture, but also in coordinating ITS in the region. The benefits of this working group that have been realized in the architecture development process should be built upon as the transportation system envisioned by the architecture takes shape.

## **MRPC** Activities

## Emergency Preemption Scan in the Montachusett Region (2009)

The *Emergency Preemption Scan in the Montachusett Region* was a combination of an inventory and information gathering task as well as a continued effort to improve our understanding of the conditions of the transportation network in the Montachusett region. The main focus of the report was to scan the existence and use of emergency preemption controls at stop lights throughout the region. Preemption devices fall into the category of an ITS. Preemption controls in traffic



signals allow normal operation of traffic lights to be altered, and is used both for transit orientated vehicles and more commonly for emergency response vehicles.

# Traffic Signals in the Montachusett Region

Signals	83	
% of Total	100%	
Preemption	64	
%Preemption	77%	
Undetermined	2	
% Undetermined	3%	

The report includes a complete description of these devices along with known benefits. The study process included information gathered from municipal police and fire stations, hospitals and private ambulance providers in the region, as well as an inventory gathered from various sources on preemption capabilities at intersections in the region. Input from is documented in the report and ultimately coupled with additional characteristics of these intersections for the purpose of prioritizing each intersection that does not have preemption capabilities for future improvements.

Community	Street #1	Street #2	Priority
Fitchburg	MAIN ST. (2A)	NORTH ST.	1
Fitchburg	MAIN ST. (2A)	ROLLSTON ST.	2
Fitchburg	MAIN ST. (2A)	MECHANIC ST.	3
Fitchburg	WATER ST. (12)	BENSON ST.	4
Fitchburg	PUTNAM ST.	LAUREL ST.	5
Fitchburg	BEMIS RD.	AIRPORT RD.	6
Townsend	MAIN ST. (119)	BROOKLINE ST.	7
Fitchburg	RIVER ST. (31/2A)	WALLACE ST. (East)	8
Gardner	PARKER ST. (101	GRAHAM ST.	9
Westminster	STATE RD. EAST	HAGER PARK RD	10
Fitchburg	JOHN FITCH HGWY	LUNENBURG ST. (2A)	11
Fitchburg	RTE. 2	MT. ELAM RD.	12
Fitchburg	SOUTH ST.	OLD SOUTH ST.	13
Fitchburg	SOUTH ST.	WANOOSNOC RD.	14
Athol	MAIN ST (2A)	DANIEL SHAYS	15
Fitchburg	SOUTH ST.	WHALON ST.	16
Fitchburg	WATER ST. (12)	5TH ST.	17
Fitchburg	JOHN FITCH HGWY	PEARL ST.	18
Gardner	ELM ST.	UNION SQ.	19

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The Emergency Preemption Scan in the Montachusett Region is available as a reference tool and is presented for the use of the MRPC and all interested or involved parties concerned with this valuable ITS technology. The following list of recommendations is made by the MRPC in relation to future emergency preemption activities in the Montachusett region.





- Improve general knowledge of emergency preemption and its importance to safety and emergency response in the region to both municipalities and the public.
- Expand users of emergency preemption.
- Improve cooperation and communication between users in public, private and intermunicipal programs in the region.
- Promote use of same or similar system.
- It is important to identify one agency responsible for system maintenance, operations and communications.
- Continue to develop according to planned ITS Architecture for Central Massachusetts.
- Include more infrastructure in network.
- Communities are encouraged to pursue any funding opportunities, such as those mentioned in this report, which will work to improve or develop emergency preemption activities in their city or town.
- As the network of emergency preemption controls at intersections develops, communities may want to consider stipulations in agreements with private ambulance providers encouraging them to attain the equipment necessary to utilize the controls. Communities may also require the addition of preemption technologies on new signals and signal upgrades as a part of new developments.
- Use prioritization provided in this report to put additional weight on possible projects that could include preemption in the future through the Transportation Improvement Program (TIP) process.

# Recommendations

Continue to provide support to the Regional Homeland Security Councils established for member communities. Mapping and planning support are essential to helping the HSCs address the needs and responsibilities of various security issues. GIS can play an important role in this process.

Continue and expand assistance to local emergency management departments and directors. Local agencies are required to produce Community Emergency Management Plans (CEMP) for submittal to the Massachusetts Emergency Management Agency (MEMA). Mapping assistance for the development of evacuation routes, location of critical facilities, etc. can be extremely beneficial.

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Continue and expand the maintenance of the critical infrastructure of the Region with repairs, rehabilitation and improvements to the road, bridge and dam networks.

The Montachusett Regional Transit Authority (MART) should continue efforts with local emergency management agencies, particularly in Fitchburg and Leominster, to define, clarify and expand operating procedures for the use of RTA vehicles in emergency situations. Training through table top exercises, etc. should be conducted to test and refine procedures.

Security at commuter rail facilities should continue to remain a priority. Expansion of surveillance equipment and procedures are important to ensure adequate coverage and protection. Additional funding to implement appropriate measures is critical and essential. Periodic review of the system by security professionals should be conducted.

Seek to improve the reporting procedures between the rail companies and local and state officials regarding the transportation of hazardous materials. Proper emergency planning depends upon accurate data and communication.

Continue the development and deployment of ITS strategies as outlined in the "Regional ITS Architecture for Central Massachusetts" Final Report as both highway and transit projects are developed. Expansion of ITS technologies and strategies should comply with the frameworks set within this architecture. MRPC will continue to participate in the Central Massachusetts Regional ITS Planning and Coordination Committee (RIPCC) & Stakeholder Group

Aviation facilities should be examined to ensure adequate security measures are in place and improved where needed.

