WESTERN MASSACHUSETTS
REGIONAL HOMELAND
SECURITY ADVISORY COUNCIL

CENTRAL REGION HOMELAND SECURITY COUNCIL

JUNE 1, 2011 TORNADO RESPONSE: AFTER ACTION REPORT AND IMPROVEMENT PLAN

Prepared for: Western Massachusetts Homeland Security Advisory Council and

Central Region Homeland Security Advisory Council

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Contents

Section 1: Executive Summary

The Western Regional Homeland Security Advisory Council (WRHSAC) and the Central Region Homeland Security Council (CRHSC) identified the need for an After Action Report (AAR) following the June 1, 2011 tornado events, which hit municipalities throughout their regions. The conduct of this AAR has endeavored to be inclusive of all the multiple facets of the regional response to these events and is compliant with the Homeland Security Exercise and Evaluation Program (HSEEP).

The goal of this project has been to complete a regionally inclusive, multi-disciplinary and comprehensive After Action Report (AAR) of the tornado response with a clear focus on the local response activities versus the State and Federal actions. The AAR will include a detailed Improvement Plan (IP) and recommended courses of action for IP implementation. Each agency should review the recommendations and determine the most appropriate action and the resources needed (time, staff, funds) for implementation. Further, some of the recommendations could benefit from resources shared across Regions, particularly where investment might be high.

This AAR/IP has a distinct focus on the local community response efforts. In the development of this report has been coordinated with WRHSAC and CRHSC leadership and key stakeholders. Key stakeholders include (but are not limited to) local police departments, fire departments, Emergency Medical Services (EMS), emergency management directors, sheriff's departments, hospitals, public safety communications, Departments of Public Works (DPWs), boards of health/public health, municipal officials, transportation authorities, Medical Reserve Corps (MRC), local Disaster Animal Response Teams (DARTs), regional Incident Management Teams (IMATs), Massachusetts Emergency Management Agency (MEMA), American Red Cross (ARC), Salvation Army, Massachusetts Department of Fire Services (DFS), Massachusetts Department of Public Health (DPH), Massachusetts National Guard and the Massachusetts Department of Environmental Protection.

When viewed from a strategic level this AAR yields a valuable insight into the preparedness architecture of the State of Massachusetts, the Western and Central Regions and the communities they serve. While there is a fundamental framework in place that allows first responders to apply their resources rapidly to individual incidents that occur in each local jurisdiction, there is a lack of unifying adhesion within that framework to coalesce a truly resilient preparedness and response system. The symptoms supporting this observation are sometimes subtle and, more often, surprisingly clear. In fact, it is quite evident that the many professional partners in the homeland security and emergency management enterprise would like to learn more, know more, practice more and plan more collaboratively. The lack of this kind of unifying glue is a direct result of lack of resources in most cases, but it reflects a more general attitude that "we will get through it just fine. We have in the past and we will continue to get it done when the time comes, regardless of our resource shortfalls and gaps in preparedness." And the record shows that in the end, major consequences and loss of life from lack of preparedness have not been in evidence. Nonetheless, wasted time and resources, frustration, sour inter-jurisdictional relations and inequitable distribution of responsibilities among the organizations continue.

A couple of basic needs are clear, at least in comparison to national norms in more disaster prone areas. There are some fundamental tenets of emergency preparedness that are for the most part non-negotiable for viable programs. A jurisdiction should have these fundamental elements:

1. Executive policy that defines the vision, mission and enabling authority
2. Program goals and objectives
3. Program plans and procedures
4. Applicable authorities, legislation, regulations and codes of practice
5. A program budget, project schedule and milestones
6. A designated individual with the authority to execute the program on behalf of the jurisdiction
7. An advisory committee with stakeholder membership
8. A comprehensive annual review and assessment by stakeholders of the program

If any of these fundamentals are missing, especially a budget and resources, a program at any level of government will struggle. It is suggested that all jurisdictions review national standards such as EMAP, NFPA 1600 and the FEMA PS Prep program for the private sector as a guide to developing and maintaining a viable program.

Major Strengths

This tornado impacted a wide swath of Central and Western Massachusetts, yet the strengths and weaknesses demonstrated during the response and initial recovery were very similar for each community. This should not be surprising given the fact that the impacted communities operate within the same or similar organizational, political, geographical and economic systems. However, it was interesting to note that some communities employed strategies that proved successful, in close proximity to areas where other communities struggled. These best practices are highlighted throughout the document.

What went well?

1. The Massachusetts-Task Force 1 Urban Search and Rescue Team, deployed out of Beverly, Massachusetts, to Springfield and West Springfield, demonstrated what an asset they are to the state with their quick and professional response.
2. Schools were back in session very quickly after the event—most communities only missed 1-2 days at the most. Students were even transported from the shelters to their schools.
3. Power was restored very quickly throughout the impacted region.
4. Debris was removed in a quick and orderly manner, despite some initial frustration regarding documentation procedures. Pre-designated debris collection sites proved beneficial.
5. A multitude of volunteer organizations provided innumerable valuable services, such as providing interpreters to help with non-English speaking survivors, and staffing and administering shelters for a full month.
6. Relief Centers were formed in some communities that provided a hub for volunteers to gather and for survivors to come for comfort and find donations. Some of these centers fed 2,500 people a day.
7. Community members provided donations to survivors by the truckloads (which also presented challenges) and showed up en masse to help their neighbors clean their yards and pick up debris.
8. Disaster Animal Response Teams (DARTs) and State of Massachusetts Animal Response Teams (SMARTs) were deployed for the first time and proved that their training and equipment purchases were worthwhile.

9. Public education and information went well for some communities, especially those that utilized volunteers and tried creative methods (from social networks and face-to-face communications).

Areas for Improvement

This large-scale incident provided a chance to test plans, procedures and training to an extent not possible in recent years. Therefore, opportunities for improvement were identified throughout the impacted communities in the following areas. These broad categories serve as focal points for individual strengths and weaknesses:

- Mutual Aid
- Operations and Procedures/Urban Search and Rescue
- Resource Management and Logistics
- Administration and Finance
- Laws and Authorities
- Prevention and Security
- Hazard Identification, Risk Assessment and Consequence Analysis
- Emergency Public Information and Warning
- Crisis Communications, Public Education and Information (Public Facing)
- Operational Planning
- Communications (Response Community, including all stakeholders)
- Mass Care
- Volunteer and Donations Management
- Operations and Procedures/Emergency Medical
- Facilities
- Emergency Management Program Administration, Plans and Evaluation

What needs improvement?

1. The ICS Regional Area Command organizational structure and protocols should be considered for use in a multi-regional, multi-municipality incident such as this.
2. Resource management planning and tracking tools are needed in order to facilitate and improve the sharing and distribution of regional assets in a multi-municipality event.
3. A system is needed for credentialing for access to the incident scene for both first responders and volunteers.
4. Financial and administrative procedures, required after a Federal Disaster Declaration, need to be trained and better understood by key personnel prior to an event.
5. The process for communicating requirements for security and law enforcement between the impacted communities and the state require clarification (e.g., traffic and perimeter control).
6. All hazards emergency management plans should be exercised more often.
7. Redundant modes of mass notification (reverse 911, SMS text, traditional EAS, alarms) in the event of a no-notice event should be established.
8. Staffing shortages for EOCs and Joint Information Centers (JICs) should be addressed in planning; alternative solutions such as multi-discipline IMATs should be considered.
9. A system is needed to share information with and between *all* stakeholders in the immediate aftermath of an event.

10. Further investigation and analysis of failures in information support systems like WebEOC should be undertaken to determine failure modes and methods to correct them. The process for achieving a common operating picture and effectively share information both vertically and horizontally throughout the response and recovery operation requires clarification and streamlining.
11. A system is needed to better coordinate the assignment of interim housing solutions to survivors unable to return to their pre-disaster homes.
12. Resource processes are needed that allow for acceptance, management and distribution of donated goods and materials, services, and financial resources, either solicited or unsolicited.
13. In order for community Emergency Management programs to meet minimum functional requirements, sufficient resources are required.

Assessing Capabilities and Activities

In order to assess capabilities and activities of disparate local and regional organizations across the tornado incident area, we have used the *Emergency Management Standard by the Emergency Management Accreditation Program (EMAP)* structure to organize and categorize our findings. The *Emergency Management Standard* is a scalable yet rigorous national standard for local, tribal, regional, state, national, and private sector emergency management programs. For the purposes of this report each of the listed capabilities are cross-walked with the Target Capabilities List or TCL. We also reference where appropriate the "Duties of the Local Emergency Management Director (EMD)" distributed to each EMD by the Commonwealth of Massachusetts Emergency Management Agency (MEMA).

With that said, this report does not merely look at the response effort through the lens of the EMD and the first responders. If nothing else, the response to the tornado demonstrated FEMA's notion of emergency response as a "whole community."

> "Perhaps the most important initiative we must undertake, regardless of the budget environment, is to recognize our efforts are part of an interconnected plan of action. This 'Whole Community' approach to emergency management provides the appropriate framework for leveraging the expertise and resources of our stakeholders at all levels, both governmental and non-governmental."
>
> —Craig Fugate

This tornado incident put on full display not only the necessity of effective coordination with local state, local, and federal government entities, but also the hugely important role of non-governmental organizations – such as faith-based and non-profit groups – as well as private sector entities. These organization and entities have knowledge, assets and services that government alone cannot provide.

> "Through engaging the 'Whole Community,' we maximize our limited funding and leverage the capabilities of our partners, who play a critical role in the process. A "Whole Community" approach is a valuable efficiency and cost-saving tool; yet more importantly, it is critical to our collective effectiveness to succeed in preparing for, protecting against, responding to, recovering from, and mitigating all hazards."
>
> —Craig Fugate

In addition, the tornado reminded us of the capacity of individuals to care for their families, friends, neighbors and fellow community members, which turned the citizens in the impacted communities into force multipliers rather than liabilities.

This report, where applicable, describes how these community resources were "tapped," and provides

some examples that demonstrate this concept. We also explore how to better integrate the "whole community" in future plans, procedures, training and exercises.

Approach

The observations, analysis and recommendations in this report come from a myriad of sources. Since the event occurred prior to the hiring of a consultant team (unlike the process used for exercise after action reports) observations had to be collected via one-on-one interviews, facilitated meetings, and written materials, such as hot-wash and community after action reports. We interviewed over 40 individuals from many disciplines and organizations: local police departments, fire departments, EMS, emergency management directors, sheriff's departments, public safety communications, DPWs, municipal officials, transportation authorities, Medical Reserve Corps (MRC), local Disaster Animal Response Teams (DARTs), regional Incident Management Teams (IMATs), Massachusetts Emergency Management Agency (MEMA), American Red Cross (ARC), Salvation Army, Massachusetts Department of Fire Services (DFS), and Massachusetts Department of Public Health (DPH).

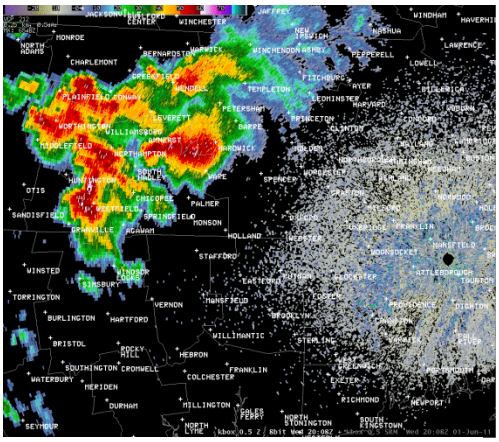
The recommendations are derived from either the subject matter experts in the community or state (such as the Fire Mobilization Committee and the Urban Search and Rescue Team), from the interviewees, or from the consultants' understanding and knowledge of best practices in other states and communities.

Although some towns are mentioned by name numerous times, the report does seek to aggregate the experiences of all the communities and highlight the most significant aspects.

Section 2: Summary of Tornado Weather Event

Climatological and Geographical Aspects of the Tornado

The Storm Prediction Center (SPC) predicted possible severe weather in the Northeastern United States two days previous to the June 1 outbreak, while a storm system was forecast to draw warm, moist air from the south followed by a cold front. The SPC initially issued a slight risk for severe thunderstorms the area. By June 1, the storm system moved over Ontario and Quebec, with a cold front trailing behind it and the Convective Available Potential Energy (CAPE) values indicating an extreme amount of instability in the atmosphere. A strong upper-level jet stream brought additional significant wind shear, which, in combination with the atmospheric instability, indicated a significant severe weather threat with the possibility of tornadoes.



Base Reflectivity Loop from Taunton, MA Radar – KBOX. http://www.erh.noaa.gov/box/sigevents/jun01_2011_radarimages.php

Storms gradually developed throughout the day as well as an increasing threat of tornadoes. A tornado watch was issued at 1:00 p.m. for much of New England, southern New York, eastern Pennsylvania and most of New Jersey. A tornado warning was issued at 3:28 p.m. for parts of Hampden, Hampshire and Franklin Counties. About an hour later, another warning was issued for Springfield, Massachusetts, and surrounding areas. Within minutes, a touchdown was confirmed near Springfield by local law enforcement and amateur radio operators.

Impact Areas and Damage

The vast majority of damage occurred in the Connecticut River Valley. The tornado caused extensive damage, killed 4 persons, injured more than 200 persons, damaged or destroyed 1,500 homes, left over 350 people homeless in Springfield's MassMutual Center arena, left 50,000 customers without power, and brought down thousands of trees. FEMA estimated that 1,435 residences were impacted with the following breakdowns: Destroyed – 319, Major Damage – 593, Minor Damage – 273, Affected – 250. FEMA estimated that the primary impact was damage to buildings and equipment with a cost estimate of $24,782,299. Total damage estimates from the storm exceed $140 million, the majority of which was from the destruction of homes and businesses.

The first tornado, an EF3, touched down in Westfield at approximately 4:00 p.m. and traveled from Westfield to Charlton. It proceeded to tear through Hampden County into Worcester County in Western Massachusetts, reaching maximum estimated winds of 160 mph and remaining on the ground for one hour and 10 minutes along a 39 mi (63 km) long path (see image below), the second longest on record in Massachusetts.

The tornado first touched down in the Munger Hill section of Westfield with damage mainly to trees as well as damage to the roof of Munger Hill Elementary School. It then intensified as it crossed into West Springfield where it caused extensive damage to commercial buildings and

homes. Afterwards, it crossed the Connecticut River at the Memorial Avenue Bridge and entered Springfield, where it caused extensive damage to the downtown area. The tornado continued moving east into the Island Pond section of Springfield where Cathedral High School sustained significant damage and many homes were completely destroyed. It continued to move eastward through Wilbraham near the Wilbraham-Hampden line, producing nearly complete deforestation and significant damage to nearby structures. It made a direct hit on the town of Monson causing widespread damage—many homes were completely destroyed, and much of the town experienced complete deforestation. It then crossed into Brimfield State Forest where additional, significant damage occurred both to structures and forested areas for many miles. The tornado reached the Southbridge Airport, lifting many aircraft off the ground, and then continued east before lifting in the southwest part of Charlton.

NASA Image. http://www.nasa.gov/topics/earth/features/mass-tornado-track.html

The two weaker tornadoes were rated EF1, with maximum wind speeds of 90 mph. The second tornado touched down in Wilbraham at 6:30 p.m. and continued east across Main Street and Mountain Road, but remained south of Route 20, staying on the ground for 8 minutes and covering 3.6 miles. Most of the damage was to trees with large limbs snapped off, as well as numerous downed and uprooted trees. The third tornado, an EF1, touched town at approximately 7:00 p.m. in northern Brimfield, west of Route 19, lasting 3 minutes and covering 1.3 miles. It crossed Route 19 and lifted near Tower Hill Road. The damage consisted of trees with large limbs snapped off, as well as numerous downed and uprooted trees. Neither of the two weaker tornadoes resulted in injuries or deaths.

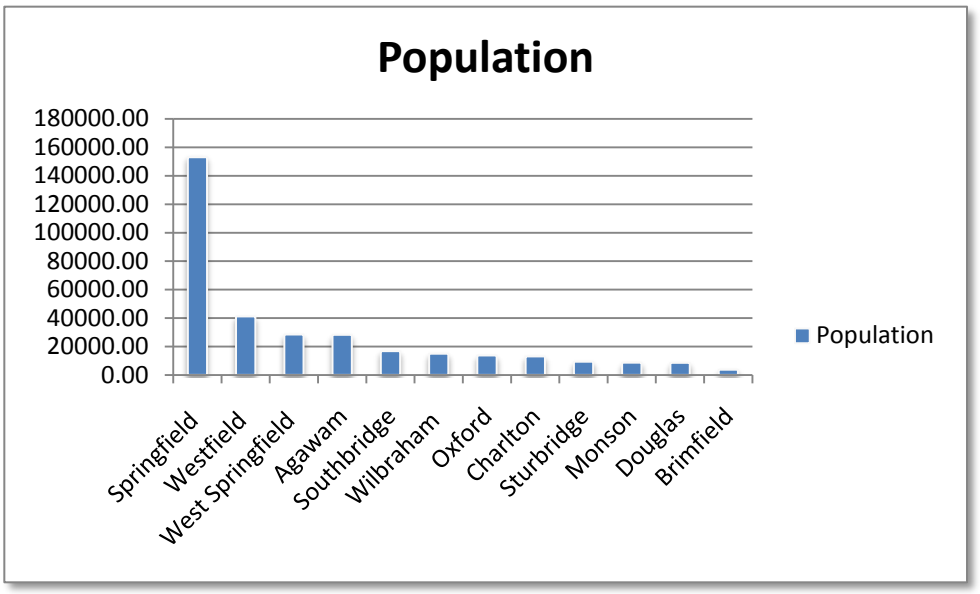
Initial State Response Actions

On June 1, 2011, Governor Deval L. Patrick declared a state of emergency in Massachusetts, called up 1,000 National Guard troops, and traveled to Springfield late Wednesday night to view the storm damage. The State Emergency Operations Center was activated that evening. The Regional Director of MassDEP's Western Regional Office in Springfield called in the Deputy Regional Directors and all available Emergency Response Personnel to work on June 2nd. The Massachusetts Emergency Management Agency (MEMA) opened the Emergency Operations Center (EOC) in Agawam. On June 2, 2011, 700 Massachusetts National Guard Personnel were deployed, and 200 were sent on missions coordinated through MEMA.

Volunteer organizations were also an important part of the response. At its peak, the Red Cross served 628 clients in 7 shelters and served 11,794 meals. The Medical Reserve Corps (MRC) assisted in staffing shelters and provided over 5,000 hours in volunteer time. The Salvation Army provided assistance at 8 locations with 5 emergency vehicles and served 20,000 meals. The Massachusetts Volunteer Organization Active in Disasters (MA VOAD) identified All Hands Volunteers as the lead that acted as a volunteer coordination team. Other organizations include the Southern Baptist Convention of New England, which sent assessment teams and chainsaw crews; the Northeast Disaster Recovery Information Exchange (NEDRIX), which logged 123.5 hours; and Springfield Christian Ministries, which supplied 150 volunteers. This all in addition to various groups of spontaneous volunteers that contributed significantly to relief efforts. More information on volunteer efforts is covered in the body of the report.

Communities Affected by the Tornadoes

This section briefly introduces and describes the communities affected by the June 2011 tornadoes in Central and Western Massachusetts. Springfield, West Springfield, Brimfield, Monson, Wilbraham, Westfield, Southbridge and Sturbridge all had extensive damage. Communities with only medium to minor damage included Agawam, Chester, Oxford and Douglas. The majority of the heavy damage occurred in Hamden County in Western Massachusetts. The F3 tornado also caused damage as it passed into Worcester County in Central Massachusetts in the towns of Charlton, Southbridge, Sturbridge, Douglas and Oxford.



As shown in the above chart, the majority of affected communities are small towns located in largely rural western and central Massachusetts. The city of Springfield is an exception in this case, as it alone has a population of 153,060 people, making it the largest city on the Connecticut River. The average population of the affected towns, excluding Springfield, is 16,892 people with a range of 3,609 to 41,094. The average median income for the affected towns is $51,435.33 per household. This is slightly more than the 2006 national average median income per household, which is $50,233.00 according to the Census Bureau. Further information on demographics by town can be found in Appendix E.

The following section includes maps that show the tornado's path in selected towns where data are available.

Injuries

Western Massachusetts witnessed all 3 of the fatalities that occurred as the result of the F3 tornado. There were 2 fatalities in West Springfield and 1 in Brimfield. Additionally, there were 43 reported major injuries in Springfield: 34 of those were transported by ambulance, and only one patient (head trauma) remained in the hospital for longer than 10 days. There were 12 reported major injuries in West Springfield and 30 in Brimfield. Agawam had 3 reported major injuries. Monson, Wilbraham and Westfield did not report any injuries. In Central Massachusetts, Southbridge, Sturbridge, Charlton, Douglas and Oxford did not report any injuries or experience any fatalities.

Damage

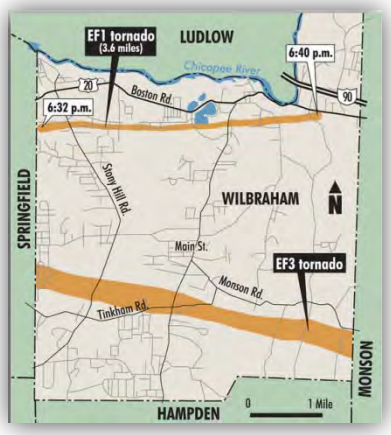
In Western Massachusetts, approximately 1,190 buildings/structures were damaged to varying degrees. In Springfield, the path of destruction was 6.2 miles long and about ¼ mile wide, affecting seven neighborhoods. Approximately 40% of the city's total population of 153,060 was affected by the storm in the first 48 hours, and a total of 578 buildings were damaged, including 3 public schools, 3 private schools and 3 public facilities. In West Springfield a total of 198 buildings were damaged, 33 of which were commercial structures and out of which 8 were destroyed. In Brimfield, 98 buildings were damaged. The DCR Camp, a critical infrastructure, also had 4 of its buildings destroyed. In Monson, 245 properties suffered building damage, 11 of which were commercial buildings. Monson's Town Hall, the police department and 2 churches also suffered major damage, and the Monson Wilbraham Academy Gym was destroyed. In Wilbraham, 164 buildings were damaged. In Westfield 15 buildings were damaged, and an elementary school roof was damaged. In Agawam, 4 buildings were reported to have minor damage.

In Central Massachusetts, there were 45 damaged buildings in Southbridge, and 33 were damaged in Sturbridge—2 of which were commercial buildings. Charlton, Douglas and Oxford did not experience any significant damage to infrastructure.

Shelters

Because homes were damaged, shelters were opened to temporarily house survivors. Some shelters stayed open for an entire month, as was the case in West Springfield and Springfield. Others were not needed for as long a period. In Western Massachusetts, the Mass Mutual Center in Springfield activated as a shelter on June 1 and at its peak had 373 occupants. Mass Mutual occupants were moved to the Greenleaf Community Center and then to Springfield Central High

School on June 3 before being moved back to Mass Mutual on June 4. In West Springfield, the middle school was opened as a shelter with a peak population of 165. Coburn Elementary School was also opened with a peak population of 80. In Brimfield, the elementary school had a shelter population of 20. In Monson, the Quarry Hill Elementary School activated as a shelter and housed 21 people at its peak. Residents of Monson and Brimfield also had the option of using the Tantasqua High School shelter in Sturbridge. In Central Massachusetts, Southbridge opened the Southbridge Armory as a shelter and had 50 occupants at its peak. Tantasqua Regional High School was opened in Sturbridge as a shelter for residents of Monson, Brimfield and Sturbridge, but did not have any occupants.



These images were obtained from http://photos.masslive.com/masslivecom_photo_essays/2011/06/mapping_the_path_of_ornadoes.html

Tree Debris

The entire impacted area experienced massive tree damage, including damage to an estimated third of the trees in the 3,600-acre Brimfield State Forest. Robinson State Park in Agawam was also hit hard by the tornado as it moved from Westfield through Agawam. Springfield had damage in 12 parks and lost 200-year-old Heritage Trees.

Debris cleanup was a joint effort by community members, government services and contracted companies. Brimfield entered into a contract, worth $408,400, with the Jennifer M. Cook Co. to remove roadside tree debris. Springfield, Wilbraham and Monson, among those hardest hit, contracted with Ashbritt Environmental, a Florida-based contractor on the state's master services list, to handle the removal of trees and other tornado-related debris from public properties. Ashbritt utilized a site at Post Office Park off Boston Road in Wilbraham as a staging site for the collection of trees and brush. Communities reported multiple spontaneous volunteers that came out to assist homeowners with removing vegetative debris from their yards.

As an example of the expense, West Springfield estimated that within its tornado devastated areas, the cost for debris management was nearly $129,000. In Monson, tree and vegetation removal costs topped $3.4 million.

Section 3: Analysis of Capabilities

This section of the report reviews the performance by capabilities, activities and tasks. These capabilities, activities and tasks are linked to either the Target Capability List, the Emergency Management Standard by EMAP, MEMA "Duties of the Local EMD" or all three. Each activity is followed by related observations including the source of the observation, analysis and recommendations.

CAPABILITY 1: Operations and Procedures/Urban Search and Rescue

Standard Summary: An Emergency Management Program should have operational plans and procedures that are developed, coordinated and implemented among all stakeholders.

- The Emergency Management Program shall develop procedures to implement all plans.
- Procedures shall reflect operational priorities including life, safety, health, property protection, environmental protection, restoration of essential utilities, restoration of essential functions and coordination among all levels of government.
- Procedures will be applicable to all hazards identified in the Hazard Identification and Risk Assessment.
- Procedures shall be developed to guide situation and damage assessment, situation reporting and incident action planning.

The Target Capabilities List defines Search and Rescue (land-based) as the capability to coordinate and conduct search and rescue (SAR) response efforts for all hazards, including searching affected areas for victims (human and, to the extent no humans remain endangered, animal) and locating, accessing, medically stabilizing, and extricating victims from the damaged area.

Observation 1.1 STRENGTH: Urban Search and Rescue (US&R) Activation and Deployment went smoothly; however, local first responders could have used more information regarding US&R roles and capabilities.

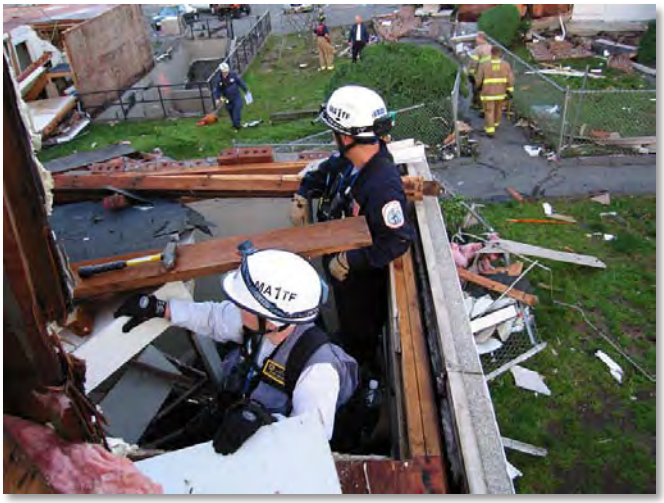


Photo Credit: Mass Task Force 1

Source: MA-TF 1 Blog.
http://blog.matf.org/

Analysis: Search and Rescue operations were identified by each community as a strength. Massachusetts Task Force 1 (MA-TF 1), based in Beverly, Massachusetts, was rapidly activated and deployed as a Type 1 US&R team. "The 80 person team consisted of Structural Engineers, Medical Specialists, Canine and Technical Search, HAZMAT, Structural Collapse Technician certified Rescue Specialists, Communication Specialists, Technical Information Specs, and a contingent of Logistics specialists. The team was lead by two Task Force leaders, Two Rescue Team Managers, two

Medical Team Managers, two Planning Team managers, two Logistics Managers, and two Safety Officers."

"These personnel allowed for two fully functional teams to conduct continuous search & rescue operations around the clock. MA-TF 1 worked with local officials in Springfield and West Springfield to search heavily damaged areas for trapped victims and assess damaged structures. This included the Six Corners area of Springfield and the Union St. downtown area of West Springfield. MA-TF 1 covered over 15 street-miles on foot and searched or assessed over 500 structures."

Local first responders indicated that the US&R team "plugged in" to the local teams seamlessly. Every building in Springfield, the largest impacted urban area, was checked in the first 24-hour period. Despite the success, Mass US&R Team 1 did identify the necessity of having an information packet for the IC. They state in their AAR: "During deployments it is often unclear to the IC exactly how MA-TF 1 can help. Despite the lack of time during a disaster to thoroughly read an information package, having such documentation that states our capabilities and our procedures would greatly assist in communicating the team's role and capabilities to the IC. The packet could include a Field Operations Guide (FOG) as well as other established documentation which the operations person could take a look at from time to time if questions were to arise (i.e., Why does that building have an X in a box?)"

- **Recommendation**: Local first responders should read or be briefed on the information packet before a disaster or exercises in order to familiarize themselves with the roles and capabilities of Mass US&R Team 1.

Observation 1.2 AREA FOR IMPROVEMENT: Structural inspection markings were not consistent among search teams.

Photo Credit: Mass Task Force 1

Source: MA-TF1 After Action Report

Analysis: Different search teams (state vs. local) used different structure markings to indicate habitability and structural condition. There were three marking systems in use by US&R: Structure Marking, Search Marking, and Victim Marking. There were some instances of confusion among MA-TF 1 members and with other agencies. Each agency followed its own marking system, which added to the confusion.

- **Recommendation**: MA-TF 1 members should review and become familiar with the current marking methodologies. A review should be given as part of pre-mission briefings. A single page legend flier should be generated and distributed to MA-TF 1 members as well as other agencies working in the area.

Observation 1.3 AREA FOR IMPROVEMENT: There was a lack of damage-assessment data sharing across disciplines.

Source: Interview

Analysis: Cross-function/discipline communications were lacking regarding initial damage assessments. The data were not readily available for others (such as public health officials). "Everyone issues their own systems and data user groups." This became a problem for public health officials when they were trying to make determinations regarding whether or not buildings were safe for occupancy. At the state level ESF#3 worked with MEMA GIS to generate maps of buildings that were placarded by color code; however, it appears that information did not make it down to West Springfield public health officials, for one.

- **Recommendation:** Procedures and policies should be developed that guide how situation reports can be readily available for all stakeholders. These procedures should explore this concept of data interoperability.
- **Recommendation:** A GIS that is designed for use at the local level should be explored. The system should provide capabilities for damage assessment and sharing of information vertically and horizontally across stakeholder organizations and agencies, including other local agencies with or without GIS software as well as state agencies with or without WebEOC. Low cost GIS systems are available that would meet this need.

Observation 1.4 AREA FOR IMPROVEMENT: Information sharing needs to go both ways. From the US&R 1 AAR: "When squads are deployed to an area where the population is still in residence, the squads should be provided with helpful information to provide to those residents, including where they can access services such as shelters."

Source: MA-TF1 After Action Report (This report is attached as Appendix F.)

Analysis: "There were a significant number of individuals who were still living in the area being search by MA-TF 1 squads. Additionally, some individuals were attempting to reside in their unsafe houses. Many of these individuals were asking squad members about shelter provisions. The Medical Team Manager did provide residents with information and resources for traumatic stress, but the Task Force did not have information about the location of the shelters setup for this incident. Some of the areas were comprised of immigrant populations, and at-risk individuals were afraid to seek shelter due to unclear immigration status. Shelters were required to shelter all people in need, regardless of their immigration status. Such information could be included in the Tactical Action Plan that is distributed to the Squads."

- **Recommendation**: "The Task Force should coordinate with the IC to learn what sheltering provisions are in place for an incident. MA-TF 1 squad members should be briefed on the specifics so that they can communicate with the residents."

CAPABILITY 2: Incident Management

Standard Summary: The Emergency Management Program should have an incident management system in place to analyze emergency situations and provide for clear and effective response and recovery.

- The Emergency Management Program formally adopts an incident management system. The system shall include but not be limited to the following concepts: modular

organization, unified command, multi-agency coordination, span of control, common terminology, action planning process, comprehensive resource management, integrated communications and pre-designated facilities.
- The Emergency Management Program shall designate a single point of contact to serve as the coordinator for the incident management system implementation.
- The Emergency Management Program shall ensure all personnel with an emergency response role receive training on its incident management system.
- The Emergency Management Program shall ensure that procedures address coordination activities with all personnel with an emergency response role including superior, subordinate and lateral elements as well as neighboring jurisdictions.
- The incident management system shall include specific organizational roles and responsibilities for each incident management function.

The Target Capabilities List describes *Onsite Incident Management* as the capability to effectively direct and control incident activities by using the Incident Command System (ICS) consistent with the National Incident Management System (NIMS).

Observation 2.1 STRENGTH: Incident command structure was visible and functioning within each impacted area. However, it should be noted that in one community where the Fire Service did not have the lead, the ICS structure was not visible.

Source: AAR Conference
Analysis: The Department of Fire Services uses ICS and does action planning on a regular basis; consequently, on-site incident management went very smoothly. It was clear who the incident commander was, especially after the first couple of hours of the event: "Who was in charge was well known." Most communities reported doing both morning and evening briefings that included all the responding disciplines. However, it should be noted that in one community where the Fire Service did not have the lead, the ICS structure was not visible.

> "The amazing thing about the incident was that more things went right than wrong. I've seen more things go wrong at a house fire, so I thought Incident command worked really well."
> —Local Fire Chief

- **Recommendation**: Exercise scenarios should be developed and utilized that test the IC system when the Fire Service is not the lead.

Observation 2.2 AREA FOR IMPROVEMENT: An Area Command was not established for this multi-regional, multi-municipality event, and no Unified Command structure existed across jurisdictions. This resulted in numerous issues arising, including resources being requested that did not reflect need or priority of the macro incident.

Source: Statewide Fire Mobilization Committee/and Interviews
Analysis: An Area Command was not established, and therefore there was a lack of knowledge of the overall incident impact. Resource requests did not reflect the requirements for the broader incident, resulting in resources being sent to less critical areas and resource requests far exceeding the need. It also resulted in a lack of cross-jurisdictional coordination.

An Area Command is specified for use by ICS where there are multiple incidents that are each being handled by an Incident Command System organization. This event met all ICS criteria for the establishment of an Area Command: several active incidents in close proximity; critical life saving or property values at risk; incidents were similar with limited critical resources; and difficulties were encountered with inter-incident resource allocation

and coordination. The primary functions of Area Command also illustrate why this organizational structure should have been implemented. The functions are as follows:

- to establish critical resource use priorities between various incidents;
- to ensure that incident management team personnel assignments and organizations are appropriate;
- to maintain contact with officials in charge and other agencies and groups;
- to coordinate the demobilization or reassignment of resources between assigned incidents.

- **Recommendation:** SOPs, trainings and exercises should be designed and carried out to test and implement the Area Command and Unified Command organizational structure for use in multi-regional, multi-municipality events.
- **Recommendation:** The statewide Fire Mobilization Committee has determined that a two-person situational awareness advance team should be developed which should be responsible for determining the priorities of response assets in multi-regional, multi-municipality events. **See also sections on Mutual Aid and on Resource Management and Logistics.*

Chief Robichaud contacted his Fire Service neighbors in Connecticut, and they literally arrived in his town within a matter of minutes. "What do you need chief? Say no more, we're on our way." These resources did not request or require reimbursement.

Observation 2.3 AREA FOR IMPROVEMENT: A Joint Field Office (JFO) was not established in the impacted area.
Source: Interviews/Massachusetts JFO Field Operating Guide (FOG) <http://www.mass.gov/Eeops/docs/mema/emd_advisory_committee/appendix_b/jfo_national_response_framework/JFO%20Field%20Operations%20Guide.pdf>.

Analysis: A JFO was not established in the field that would have provided a locus of activity and assisted with the coordination of this multi-regional, multi-jurisdictional and even multi-municipality event that had multiple agencies from three different levels of government responding. Instead, the functions that take place in the JFO were carried out at the MEMA's State Emergency Operations Center (SEOC); however, the impacted communities were not represented in the SEOC.

According to the FOG, the JFO provides a central location for coordination of federal, state, local, tribal, nongovernmental and private-sector organizations with primary responsibility for activities associated with threat response and incident support. FEMA guidance also states that representatives from each major group of agencies, departments, and organizations—to include the on-scene Incident Command agencies— should be involved in all levels of coordination planning from the outset. These representatives are especially important in order to achieve unity of effort during this problem definition phase; early development of options for interagency consideration is very important.

- **Recommendation:** Response personnel should receive continued training on the Massachusetts FOG, designed to provide guidance on how to effectively operate within the JFO organization.
- **Recommendation:** Multi-regional exercise scenarios should be designed to test the implementation of the FOG.

Observation 2.4 AREA FOR IMPROVEMENT: Most ICs in the affected communities did not develop Incident Action Plans for each operational period.

Source: Interviews

Analysis: One shortfall in the area of On-Site Incident Command was a lack of the development of Incident Action Plans (IAPs). This gap was reportedly due to limited staffing for the IC.

- **Recommendation**: Consideration should be given to augmenting both IC and EOC staff with IMATs or EMAC mutual aid resources to help facilitate the writing of IAPs and other associated administrative tasks.

Observation 2.5 STRENGTH: Utilities were restored quickly due to a prioritization by the Incident Command to ensure quick debris removal in order to allow access to lines and poles.

Source: Interviews

Analysis: Most communities were able to restore power relatively quickly. This was attributed to good on-site incident management that allowed for coordinated debris clearance around power lines. In the Springfield area, for example, power was restored within 72 hours; this was also in the case in other communities. “One hundred and fifty crews from all over New England worked to get it done.”

- **Recommendation:** None

Observation 2.6 AREA FOR IMPROVEMENT: Not all personnel with an emergency response role had training on the incident management system, leading to confusion about their roles and responsibilities.

Source: Interviews

Analysis: Not all personnel (including elected officials) with a role in the response had received basic ICS training or had an understanding of their own roles and responsibilities, or of the roles and responsibilities of the Incident Commander versus the Emergency Manager. This was especially problematic in towns where there was little staff redundancy. This translated into lack of knowledge of processes, including what resources and capabilities other organizations, including MEMA, provide after a disaster. It also caused problems with volunteer groups (including faith-based organizations) not knowing where they fit into the organizational structure. “We are good at exercising Fire and Police but not the other disciplines.” In some towns it was reported that individual departments did their jobs, but did not work well as a team (fire, police, DPW, EMS). “Everyone acted as their own department in their own way.”

- **Recommendation:** All personnel with an emergency response role should receive training on the incident management system; this should include individuals not normally considered first responders, such as officials in the Departments of Public Works, elected officials, and volunteer organizations.
- **Recommendation**: If possible, regularly scheduled periodic meetings and discussions about organizational roles and responsibilities should occur.

Observation 2.7 AREA FOR IMPROVEMENT: Controlling access to the impacted area, including the influx of sightseers and the traffic problems that ensued, was difficult.

Source: Interviews

Analysis: Traffic control was problematic because people wanted to see the damage. In some of the most impacted communities, sightseers backed up traffic for miles. Some ICs and

EMDs concluded that in future responses they will allocate more assets from the outset of the response to mitigate this problem.

- **Recommendation:** Develop SOPs for perimeter control of the impacted area that can be expanded to include assets such as the National Guard.

CAPABILITY 3: Mutual Aid

Standard Summary: Mutual aid is one of the components of the EOC Management Target Capability. However, the EMAP standard lists this capability independently. That model actually works better for the Western and Central Regions of Massachusetts, since most mutual aid that was delivered was not done via the EOC, but rather through the Statewide Fire Mobilization Plan or through the district control points. According to EMAP, an Emergency Management program should have the necessary agreements in place for sharing resources across jurisdictional lines as needed during response and recovery.

***(This capability area is closely related to both Incident Command and Resource Management*)**

Observation 3.1 AREA FOR IMPROVEMENT: Emergency Medical Services and Mass Casualty resource deployment caused shortfalls.

Source: Statewide Fire Mobilization Committee
Analysis: Emergency Medical Services units were called using mutual aid and the Mass Casualty Incident Response Plan, but their allocation was not well coordinated. This resulted in large areas of Hampshire County being left with insufficient resources and resulted in the request for a cover task force.

- **Recommendation:** The Massachusetts Department of Public Health elected to utilize the Massachusetts Statewide Fire Mobilization Plan for the dispatch of ambulances during significant events. The Fire Mobilization committee recommends that this system be integrated into local and regional Mass Casualty Incident Plans.

Observation 3.2 AREA FOR IMPROVEMENT: EMS response via mutual aid was not well coordinated, resulting in duplication of effort.

Source: Statewide Fire Mobilization Committee
Analysis: EMS response was not well coordinated to match requirements with resources. At one point a mutual aid unit was dispatched to a medical emergency only to arrive and find the patient had been transported by ambulance 20 minutes earlier. As they cleared the call, several other ambulances arrived at the location. These extra personnel and trucks "clogged up the system."

- **Recommendation:** A plan/method should be developed that allows for the tracking of assigned resources to meet surge requirements, including personnel. The plan

should be trained and exercised. (*See Capability 4 for more information on this area as well as Capability 16, Operations and Procedures/Emergency Medical.)*

Observation 3.3 AREA FOR IMPROVEMENT: The development of a common operating picture for the incident took too long to be effective.

Source: Statewide Fire Mobilization Committee

Analysis: In the immediate aftermath of the event, it took what was considered an unacceptable length of time for a common operating picture to develop. Limited information existed relative to conditions and what was needed.

Information from the field was flowing to ESF#4 Desk (staffed by Fire Service Personnel) in the State Emergency Operations Center via cell phones and radio communications. However, tracking resources in the highly dynamic situation was a challenge due to limited availability of technological tools. Currently, they do not have a geospatial tracking or web-based database management system in place, nor is GIS integrated; instead a non-computer based T-card system was used during the event. If a locally-based and controlled GIS were in place, local Situational Awareness and a Common Operational Picture could be operational very early in the response, realistically in as little as a few hours. Off-the-shelf GIS tools that do not require a high level of training to use or a GIS expert to operate are available and would enable local jurisdictions to begin to report damage assessment almost immediately to update a local/county/regional base map and share it with all those who need the information. Hiring of new personnel to provide training and operation of this system may be reduced to a few regional positions since local individuals can be easily trained to operate the system.

- **Recommendation**: The Statewide Fire Mobilization Committee has developed a concept for the Fire Mobilization plan to include a two-person advance team for the purposes of gaining situational awareness. SOPs should be developed that flesh out the overarching concept. These procedures should be tested in exercise scenarios. (See 2.2—same recommendation).
- **Recommendation**: Off-the shelf tools should be reviewed that offer a redundant and resilient web-based system for tracking fire apparatus and personnel, including GPS-based systems.
- **Recommendation**: The use of GIS should be explored, including off-the-shelf GIS tools that do not require a high level of training to use or a GIS expert to operate, and skills in the use of these tools should be fostered at the local level.
- **Recommendation**: The National Wildfire Coordinating Group GIS Standard Operating Procedures should be reviewed. If determined necessary, new personnel should be hired—such as a GIS specialist (unless the person is available in the state MEMA office) to effectively operate a system for tracking personnel and apparatus in the field. Typical GIS specialist tasks include:
    - Collecting, processing and disseminating incident-related spatial data;
    - Maintaining the standardized file structures;
    - Collecting and maintaining the Minimum Essential Datasets;
    - Creating new data as needed for incident operations:
    - Incorporating data from GPS units and other sources;
    - Digitizing fire perimeter and other incident data;
    - Creating necessary products using the defined Map Symbology within the agreed-upon time;
    - Properly documenting data and archiving work;
    - Complying with security data management;

- Transferring GIS data to and from various locations, which may include FTP sites or Web sites as requested by the situation unit leader;
- Effectively transferring the products, projects, and data created in GIS to other personnel on the incident or to the hosting agency;
- Complying with demobilization procedures;
- Keeping informed of any known hardware, software, or data difficulties and concerns;
- Providing maps as requested by the situation unit leader, emphasizing the standard map.

Source: http://www.nwcg.gov/pms/pubs/GSTOP7.pdf

Observation 3.4 AREA FOR IMPROVEMENT: Coordination between the Statewide Fire Mobilization ESF#4 Desk at MEMA and ESF#5 should be improved.

Source: Statewide Fire Mobilization Committee

Analysis: Although ESF#4 was activated and staffed at the State EOC, concerns were raised that their activities were not well understood by ESF#5. The ESF#4 desk did not use WebEOC for this event, and there was not a good way to share information since the staff at the desk was overwhelmed with the tasks at hand. Developing a locally controlled GIS capability as described in Observation 3.3 would have been useful in providing the interoperability platform needed for information sharing vertically and horizontally.

- **Recommendation**: Foster integration of ESF#4 with the ESF#5 planning and situation unit by providing additional staff to assist the ESF#4 desk as well as a GIS specialist.
- **Recommendation**: The ESF#4 position should be a standard staffing requirement. The person in this position would be responsible for serving as the Fire Mobilization Coordinator during non-emergencies (similar to the MAPC/NERAC coordinator) and would also serve as additional staff for the ESF#4 desk during emergencies.
- **Recommendation**: See Observation 3.3, GIS.

Observation 3.5 AREA FOR IMPROVEMENT: The event demonstrated the importance of training.

Source: Statewide Fire Mobilization Committee

Analysis: An event as large as this one, which tested the Statewide Fire Mobilization Plan in a robust manner, did demonstrate that additional and continued trainings are required.

- **Recommendation**: The following training areas were identified as priorities by the Fire Mobilization Committee:
  - Telecommunicator training;
  - Task-Force Leader training;
  - EMS program—training for ambulance Task Forces.

Observation 3.6 AREA FOR IMPROVEMENT: An Incident Management Team (IMAT) was activated and held on station without assignment for 24 hours After release, it was later discovered that those resources were needed but not assigned a mission.

Source: Interviews

Analysis: An IMAT was activated and deployed to the MEMA SEOC in Agawam immediately after the event. The activation might have been premature in retrospect, as there was not a clear picture of what was needed, and therefore assignments were unclear in the EOC. The IMAT did provide limited assistance to the regional office in fielding phone calls and requests, and in making contact with all affected communities. However, when

communities requested resources, the IMAT members had no power to deliver on the request, only to relay the information back to MEMA at the state level. The impacted communities saw this as an unnecessary step: "Why am I talking to this go-between when I can just call the State directly?" The IMAT was deactivated after only 24 hours.

Meanwhile, Monson, a town that was impacted directly, requested any and all available assistance. The town itself took a direct hit—including the police department, the 911-dispatch center and city office buildings. Three town administrators were all fairly new to their jobs, and since the Emergency Manager was out of town, an acting EMD (the Assistant Fire Chief) was appointed. An Emergency Operations Center was not established (just an Incident Command Center) due to lack of staffing.

- **Recommendation**: IMAT roles and functions should be clarified regarding how they will be used and integrated into the operation.
- **Recommendation**: Standard Operating Procedures should be written regarding the circumstances in which IMATs should be deployed to impacted communities.

CAPABILITY 4: Resource Management and Logistics

Standard Summary: The Emergency Management Program should have a resource management system that includes objectives and implementing procedures that address the identification, location, acquisition, storage, maintenance and testing, timely distribution, and accounting for services and materials to address the hazards identified by the jurisdiction.

- Resource management objectives shall be established by conducting a periodic gap analysis.
- Resource needs and shortfalls are identified by the Emergency Management Program through a comprehensive assessment that is conducted periodically. Resource needs and shortfalls are prioritized and addressed through a variety of initiatives, which include the budget process, executive process, mutual aid agreements, memoranda of understanding, contractual service agreements, or business partnerships and steps necessary to overcome any shortfalls.
- The resource management system includes procedures that address the following:
  (1) Activating those processes prior to and during an emergency;
  (2) Dispatching resources prior to and during an emergency;
  (3) Deactivating or recalling resources during or after an emergency.
- The Emergency Management Program maintains a system and a plan for obtaining internal and external resources.

MEMA "Duties of the Local EMD":

- The EMD should keep a current inventory of all available response assets in the jurisdiction and know where to obtain additional assets through MOU/MOAs, mutual aid, contracts and private sources. This list should be updated, at least annually.

> "We told the MEMA state representative in our Incident Command Center what we needed and he typed in the request...but who knows what happened to it after that. It seemed to go nowhere and we had no way of knowing if anyone even saw or read his report. After several very frustrating days of this, we found the resources elsewhere."
> —Monson

Observation 4.1 AREA FOR IMPROVEMENT: Resource tracking/single point ordering was not done effectively.

Source: Central Regional After Action Conference

Analysis: No formal program exists to manage resource distribution, which resulted in multiple agencies ordering the same resources. This lack of a system also resulted in agencies not understanding when or if the requested resource would be allocated. Furthermore, there is no way for the requesting locality to track this information.
With regard to ordering resources from the state, people complained that resource ordering forms were not consistent. This also resulted in assets getting deployed but not used, including some of the human resources (such as task forces). It also resulted in assets not going to the most impacted areas.

- **Recommendation**: Create a standardized resource request form that can easily be tracked (needs to be manual and electronic). This would also include state-wide communication protocols and agreements.
- **Recommendation**: Establish a program to ensure resources are tracked and approvals/denials of requests are available to all involved.
- **Recommendation**: Endorse and train to the NIMS standards on management of resources (e.g., staging, deployment, demobilization).
- **Recommendation**: Consider the development of a demobilization strategy that includes the rapid release of unneeded resources, which could be shifted to other locations based on priority and requirement. (This was also posted in the section on Mutual Aid.)

Observation 4.2 AREA FOR IMPROVEMENT: Once a resource is moved from its storage, there is no system in place to track its location, nor is there a way for the user to know where it came from in order to return it.

> "I received light kits and didn't know where they were from and I didn't know who to contact to return them until days later when a guy called looking for his lights. Unfortunately, I had had to cut the lock in order to use it. If I would have known where they came from I could have asked for the key."
> Local EMD

Source: Central Region After Action Conference/MEMA AAR Conference

Analysis: During the immediate aftermath of the event, as it became apparent that some communities were heavily impacted, MEMA officials in Agawam requested resources be sent to their offices for deployment. These resources, items such as lighted message boards, light towers, shelter equipment and radio caches, were then distributed to the communities. Both the Western and Central Region Homeland Security Councils have developed and delivered, both in hard copy and electronically, a resource guide for all available resources funded through the Council. These guides also include the storage location of resources.

However, once resources were moved from one community to another it became difficult to keep track of their origination. Hand receipts for these items are held at the local level, and the Councils have no ownership of the items. People reported having items in their possession with no idea where they came from. One shelter manager stated that when it came time to deactivate, she did not know how to return the cots. This was not a unique story.

- **Recommendation**: At a minimum, communities should place some form of identification on their equipment with storage location and contact information.
- **Recommendation**: Regional Councils should investigate low-cost alternatives to expensive electronic Radio Frequency Identification (RFID) tracking systems, such as QR codes. QR codes (or bar codes) can be read by smart phone applications and

are an extremely low-cost method for tracking resources (QR codes can be generated for free and printed on any printer). QR codes were originally created by Toyota to track vehicles during the manufacturing process.

- **Recommendation**: MEMA should investigate whether or not communities could take advantage of the new free database management software from FEMA and whether or not that software will be compatible with MEMA's Resource Management Systems. The FEMA software will be made available in the near future according to FEMA's website:

  The National Integration Center (NIC) is supporting the development of a database management tool for Federal, State, local, and tribal officials, which will be available to them at no cost. The software will allow emergency responders to enter typed resources and select specific resources for mutual aid purposes based upon mission requirements, capability of resources, and response time. This tool will be rolled out to the emergency response community in phases. Phase One will provide the basic database management tool to enter a community's 120 typed resources into a common database, which can be shared nationally and housed locally.

CAPABILITY 5: Mass Care/Animal Management

Capability Summary: Care for household pets and service animals is one of the responsibilities defined as a component within ESF#6 Annex under the National Response Framework. As noted in the 2006 Robert T. Stafford Act (as amended by the Pets Evacuation and Transportation Standards [PETS Act] and Post-Katrina Emergency Management Reform Act [PKEMRA]), government jurisdictions must have "plans that take into account the needs of individuals and their household with pets and service animals prior to, during and following a major disaster or emergency." The WRHSAC has undertaken a unique disaster planning/preparedness, response and recovery initiative designed to enhance the capabilities to meet the needs of pet owners and pets during and following emergencies and disasters entitled the Western Massachusetts Disaster Animal Response Team (DART) Initiative. Since this was the first time for DART to go operational in the state, there were some lessons learned. Nonetheless, overall, their efforts should be deemed a success since they were able to deploy rapidly and cared for a large number of pets.

This initiative is facilitated in the Western Massachusetts region comprised of the following four counties:

- Berkshire County
- Franklin County
- Hampden County
- Hampshire County

Observation 5.1 STRENGTH: DARTs were deployed immediately to impacted areas.

Source: Interview

Analysis: The Hampshire County Animal Rescue Team (HEART) was activated by a direct formal request from Bob Hassett, the Springfield Director of Emergency Management, the day of the event. The team was initially deployed to the wrong location, but they found their way to the Dakin Animal Shelter in Springfield. Franklin CERT helped staff the shelter during the second operational period.

However, in Monson, there was a bit of confusion. A request was made for the State Animal Response Team (SMART), but it was made directly to the team versus through MEMA. This resulted in a delay. Once the team was formally requested through the state, they set up a pet shelter and helped community members who were unable to live in their homes—or who had damaged homes and couldn't care for their pets (245 properties were impacted in Monson).

- **Recommendation:** DART and/or SMART activation and deployment should be included in all exercises that involve human shelter operations.

Observation 5.2 AREA FOR IMPROVEMENT: The pet shelter location was not predetermined, nor was it near the human shelter (in Springfield).

Source: Interview

Analysis: There were pros and cons to using the Dakin Animal Shelter. The shelter already had a strong volunteer staff, which meant that DART members were not required to staff the shelter, but it was not close enough to the human shelter for people to visit their pets. This is an important consideration since often people see their pets as their "children" and get distressed when they are separated from them for an extended period of time. The WRHSAC purchased animal trailers containing crates, and all the equipment was used at the Dakin facility—the normal Dakin animal population was not co-mingled with the pets.

- **Recommendation:** Co-located human and animal shelters, or at least facilities that are on the same campus (either within or nearby) should be pre-designated.
- **Recommendation**: If co-location is not possible, a way to transport people from the shelter to the pet shelter should be planned.

Observation 5.3 AREA FOR IMPROVEMENT: Shelter operators and facility managers were unaware of the DART capabilities, roles and responsibilities.

Source: Interview

Analysis: The day after the tornado event, people were taken to the animal shelter from the human shelter in order to drop off their animals. However, for two individuals this was too late—they had already given away their pets. Shelter staff was initially unaware that the Dakin facility had been stood up, and the staff refused to allow another DART member (who was also initially unaware of the Dakin facility's use) to set up temporary shelter for the animals outside of the human shelter. The human shelter staff was concerned about sanitation—unaware of the abilities of the DART members to set up a sanitary operation. This observation also points to the need for situational awareness for all involved. All relevant regional information that has a geographic (i.e., location) attribute should be included in a master resource GIS database. However, there also needs to be a process to ensure that the information is kept up to date.

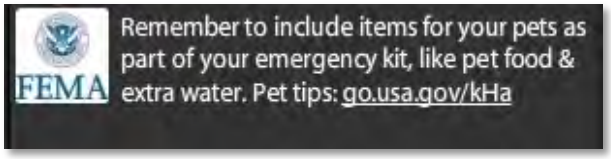
- **Recommendation**—Pre-event: Outreach is necessary to pre-designated shelter facility operators (such as school boards) in order to educate them about DART's abilities to place

animals in their buildings in a way that doesn't damage their facility (e.g., tarping is used where animals are walked—the entire location is thoroughly cleaned after use).

- **Recommendation**—Post-event: When a DART facility is established, communication to all impacted community members should occur as well as to shelter managers that this resource is available.

- **Recommendation**: Outreach is also needed for people with large animals that cannot be housed at a shelter. The DART should continue in its effort to develop a database of what large animals are in the community. This information should be shared with local EMDs and potentially even incorporated into their GIS systems. (People who have an issue with large animals might be slow to evacuate.)

- **Recommendation:** FEMA uses social media platforms to continuously reach people with preparedness messages to include information about pets. This type of campaign should be considered as a low cost answer to disseminating pet information.



- **Recommendation:** Animal shelter locations should be included in a master GIS database and SOPs for updating and accessing that database need to be written. (See Observation 3.3.)

Observation 5.4 AREA FOR IMPROVEMENT: A system is needed to manage spontaneous DART volunteers and to track all volunteer efforts and time.

Source: Interviews

Analysis: Numerous people tried to volunteer to support the response effort but had not been previously trained as members of the DART. It is recognized that this will be an even greater problem in the future if the DART is not located in an animal shelter that already has its own staff. During the tornado event there were no systems to identify volunteers, track what trainings had been completed, or track the volunteer hours of DART volunteers. Furthermore, it was not known if the Western Massachusetts Mutual Aid Agreement covered DART/SMART deployment or could be easily modified in order to claim reimbursement/credit for the volunteer hours.

- **Recommendation**: Develop just-in-time training for spontaneous volunteers. The training should include an introduction to the Standard Operating Procedures, currently under development.
- **Recommendation**: Develop a system for credentialing and tracking staff training and volunteer hours. This system should include ways to identify those individuals, such as badges or vests, track training people have completed (e.g., similar to the ARC's certificates), and track the hours they have donated during an event.
    - Types of training needed to become a member of the team: ICS 100, 700, MRC 101 and psych 101; plus 2 day training over the weekend. FEMA has some additional online courses that could be beneficial as well.
- **Recommendation**: It should be determined if the Western Massachusetts Mutual Aid Agreement already covers DART/SMART deployment or could easily be modified to reflect DART/SMART in order to allow the city to claim donated hours.

Observation 5.5 STRENGTH: Demobilization of the DART at Dakin went well.
Source: Interview
Analysis: Demobilization was essentially done in three phases: Human resources—staffing was reduced; equipment demobilization (Dakin staff cleaned the trailers); and finally the DART director inspected the trailer, repacked it and returned it to its storage location.

- **Recommendation**: none.

CAPABILITY 6: Administration and Finance

Standard Summary: An Emergency Management Program should have fiscal and administrative procedures in place, which support day-to-day and disaster operations. In order to become accredited, the EM Program shall develop financial and administrative procedures or follow existing jurisdiction-wide procedures for use before, during, and after an emergency or disaster. Procedures should exist to provide for maximum flexibility to expeditiously request, receive, manage, and apply funds in emergency situations to ensure timely delivery of assistance and cost recovery.

Observation 6.1 AREA FOR IMPROVEMENT: Unfamiliarity with documentation requirements and procedures caused frustration and stress.
Source: Central AAR Conference
Analysis: Most of the towns received guidance on how to prepare documentation for reimbursement under the FEMA Individual Assistance and Public Assistance Programs, under the provisions of the Stafford Act following a disaster declaration. However, unfamiliarity with the forms and the process was a complaint across organizations in the entire impacted area, especially from those departments that had the most activity, such as Departments of Public Works, EMDs, and city officials. Other complaints described a lack of information, especially before the declaration, on what was reimbursable. The lag time between the disaster and the declaration was two weeks; in the meantime, people felt as if they were guessing about what could and could not be done. “There just was not good guidance—I felt like I was breaking some rule every day.” Some DPW Directors called the entire process a “nightmare.” Unfamiliarity with the requirements resulted in assets being deployed without the proper accounting of use (e.g., where they went and how long they were used), and therefore made applying for federal assistance a more difficult task. This confusion was reported despite the guidance available on the Massachusetts Department of Environmental Protection’s website: “Disaster Debris Management Planning: An Introduction for Local Government Officials”—October 2010.

- **Recommendation:** MassDEP should continue outreach efforts to local officials while the memory of the tornado (and subsequent hurricane) is still fresh and interest is high.
- **Recommendation:** Just-in-time documentation requirement briefings should be developed to be delivered when a disaster is imminent (such as a hurricane approaching) or for use after a no-notice event.
- **Recommendation:** Deliver documentation requirement briefings before each hurricane season and each yearly MEMA hurricane exercise.
- **Recommendation:** Outreach should occur with organizations that do not normally participate in exercises, such as DPW. They should be included in planning and exercises and encouraged to participate.

- **Recommendation:** SOPs should be developed for documentation (e.g., forms that could be used by the truck drivers). Forms should be kept in trucks in hard copy but also available for printing from any computer.
- **Recommendation:** MEMA should include on its website a "toolkit" for each event—a prominently placed tab that states "Here are the forms you will need for this event." The Regional Council could also place links to those forms on their website.
- **Recommendation:** IMATs could be used to assist local communities that are overwhelmed (such as Monson was in this past event.) Teams that are well versed with the FEMA paperwork process would then be available to help with processing documentation, including how to report damage and costs in order to get a declaration.

Observation 6.2 AREA FOR IMPROVEMENT: No clear documentation procedures for logging volunteer hours existed in most communities.

Source: FEMA Public Assistance Guide

Analysis: There wasn't a good system in place to document volunteer hours in most of the impacted communities, which contributed to limited understanding of their overall contribution.

- **Recommendation:** SOPs should be developed regarding tracking and reporting volunteer hours.
- **Recommendation:** Technological solutions including web-based interactive platforms, such as "Give Tuscaloosa.com" should be explored as examples of how to provide the community with information about volunteering and tracking hours. This type of website emphasizes that volunteers all need to log their hours because it helps with the documentation process to FEMA. FEMA will subsidize the recovery costs based on the number of hours volunteered (as part of the communities' 25% cost share).

Observation 6.3 AREA FOR IMPROVEMENT: Private ambulance services' mobilization repayment proved difficult. Teams were deployed without reimbursement.

Source: Central AAR Conference

Analysis: Two private State Mobilization Task Force ambulance services members were deployed. These services were initially sent to Brimfield, but then they were moved to another impacted area after it was determined they were not needed. When these services participate on a mobilization on a task force they can't bill unless they actually transport a patient. Therefore, their time spent waiting to see if their services are required is not reimbursed unless the town accounts for them and accepts the bill. The impacted towns can seek reimbursement for this service if they receive a federal declaration. However, these teams have been deployed twice now and have not been reimbursed either time. This has the potential to make private sector companies not want to participate.

- **Recommendation:** Awareness and outreach to local community leaders about this issue is required. If officials have a clearer understanding of the potential for losing this valuable service, they may be more willing to offer reimbursement.

**Observation 6.4 AREA FOR IMPROVEMENT: ***Agencies were unsure who was responsible for re-stocking of shelter equipment.

Source: Central AAR Conference

Analysis: The re-stocking of shelter equipment is required under the terms of use by the regional councils. The WRSHAC has a written policy that makes it clear that restocking is the responsibility of the party that requests the items. The policy states:

- "Requesting Eligible Parties (REPs) are responsible to return the trailer and all non-consumable goods ***in the same condition as when loaned.*** [Emphasis added.] Requesting Eligible Parties (REPs) are financially responsible for repairs and extraordinary maintenance left to be performed by the Host in order to restore the goods to their condition when loaned. The REP agrees to restock within 30 days any of the perishable items that are used. The Host will invoice the responsible REP directly after 30 days for any costs incurred for the borrowing. An inventory check-out will be filled out when the trailer and/or goods are taken and a check-in sheet will be filled out when the trailer and/or goods are returned.
- REPs are solely responsible to arrange and pay for the cost of transport of the trailer and goods to and from the host site."

These expenses are reimbursable if there is a declaration; however, they must be properly accounted for and documented. This became an issue, and the REPs did not seem to understand their responsibilities regarding re-stocking.

- **Recommendation**: Education and training regarding how REPs can seek reimbursement might help eliminate concerns that they will be "stuck with a bill." Further education and outreach regarding the policy is needed.
  ***This issue is also related to resource management.**

- **Recommendation:** MEMA should explore this issue in order to determine the best way to incentivize communities to share resources.

Observation 6.5 **AREA FOR IMPROVEMENT: ***Agencies were unsure who was responsible for re-stocking of EMS council trailers.

Source: Central AAR Conference

Analysis: EMS councils in each region have deployable trailers with supplies that are not reimbursable since they are considered a non-profit organization. These EMS councils fall under the State Department of Public Health. The equipment that does go out is funded partially through the state and partially through the towns where it is deployed. This equipment includes items such as mass casualty trailers, trucks and communication trailers. Manpower to operate this equipment is also deployed. All of these assets are part of the non-profit organization and are not considered reimbursable. Therefore, the concern is that they might say "stop sending it, it's costing too much."

However, it was noted that agencies should not be unsure who is responsible for re-stocking since each of the five regional EMS directors receive and sign contracts specifying how the funds they receive for these trailers must be spent. Each regional EMS director should fully aware of these requirements. The requirements specifically state:

> "The other major initiative is to achieve an objective of the ASPR Healthcare Preparedness Program by continuing mutual aid planning for deploying Emergency Medical Service (EMS) trailers in response to a mass casualty incident (MCI). To achieve this objective, DPH will again provide support for the deployment and operation of 13 MCI trailers outfitted with associated medical equipment.

The total allocation for this initiative is $91,000, which equals $7,000 per trailer assigned per Council. This funding shall be used for the purposes of trailer management, acquiring the registration for each MCI trailer, deployment of the MCI trailer - in either exercise or event use - restocking the trailer equipment, ensuring trailer maintenance, and support of trailer insurance costs."

Although the policy is clear, confusion still existed after the event, which points to the need for training on the requirements.

- **Recommendation**: Further education and outreach regarding the policy is needed to ensure not just awareness, but an understanding of the requirements.

***This issue is also related to resource management.**

Observation 6.6 STRENGTH: Grants through the USDA were provided to clean waterways in Wilbraham.

Source: Interview DPW Wilbraham

Analysis: Financial assistance was provided through the USDA office in Amherst via a grant. This funding allowed Wilbraham to clean its waterways that were impacted by the tornado. Without that help they would have been faced with flooding issues caused by thousands of downed trees. This quick reaction avoided another disaster: they were prepared for the hurricane.

- **Recommendation:** None

CAPABILITY 7: Laws and Authorities

Standard Summary: An Emergency Management Program should have legal statutes and regulations establishing authority for development and maintenance of the program. The EM Program shall comply with applicable legislation, regulations, directives and policies.

- Legal authorities provide flexibility and responsiveness to execute emergency management activities in emergency and non-emergency situations.
- The EM Program responsibilities are established in state and local law.
- Legal provisions identify the fundamental authorities for the EM program, planning, funding mechanisms and continuity of government.
- The EM program has established and maintains a process for identifying and addressing proposed legislative and regulatory changes.

Observation 7.1 STRENGTH: Environmental waivers were issued rapidly.

Source: WRHSAC AAR Conference

Analysis: MassDEP prepared for rapid issuance of emergency asbestos waivers, demolition permits and emergency wetland certifications. In order to assist the communities and provide for future protection regarding environmental regulatory requirements, MassDEP quickly contacted the affected communities after the tornado to issue blanket and individual approvals, waivers and permits for applicable regulatory programs so that the communities could quickly proceed with debris removal, demolition, etc. The communities have some overlapping authorities; however, to provide assistance since many of the communities were overwhelmed, and to provide adequate enforcement protection, MassDEP did much of this

for the communities. Categories include: Issuance of emergency asbestos waivers, blanket approvals for demolition notifications, issuance of emergency wetlands certifications and approvals for debris collection sites.

- **Recommendation:** None

Observation 7.2 STRENGTH: An effective air monitoring program was established by MassDEP.

Source: WRHSAC AAR Conference

Analysis: To ensure that the public was protected from potential migration of airborne asbestos and particulate matter from demolition activities, MassDEP established a system of air monitoring networks and best management practices for demolition.

Best management practices, including adequate wetting, proved to be extremely effective in controlling emissions. Monitoring clearly demonstrated this to be the case. Demo operations were allowed to quickly proceed and "shutting down" operations were not necessary. Highly extensive monitoring operations were not required as demonstrated by the data. Based on what we learned with the wide-scale demo activities due to the tornado, we have developed a basis for future monitoring plans due to similar events/natural disasters that both protect the public health as well as allow response actions to proceed very quickly and effectively.

- **Recommendation:** None

Observation 7.3 AREA FOR IMPROVEMENT: Volunteer liability was needed for medical professionals working outside of their normal facilities.

Source: WRHSAC AAR Conference

Analysis: Liability protections for medical providers who want to volunteer outside of their facilities are needed. Even though these protections do not exist, providers responded anyway. The Medical Reserve Corps has been advocating for legislators to provide liability coverage and, even with the current disaster, has seen no movement on Beacon Hill.

- **Recommendation:** Mechanisms to allow liability protections for medical providers who want to volunteer outside of their facilities when needed should be explored. For example, whether or not elected officials can appoint MRC/CERT volunteers as special municipal employees needs to be explored.

Observation 7.4 AREA FOR IMPROVEMENT: Understanding the roles and authorities of the National Guard.

Analysis: Massachusetts Gov. Deval Patrick ordered up to 1,000 National Guard (Title 32) members to support civilian authorities. However, initially there was some lack of clarity regarding the ability of towns to use these forces to assist with law enforcement duties (unarmed). This revolved around a misunderstanding of *posse comitatus* (which applies to the Federal Regular Army—Title 10).

- **Recommendation:** A "Fact Sheet" describing roles and functions of the National Guard should be developed for the ICs.
- **Recommendation:** The National Guard should be included in exercises at the local level so that their roles, functions and capabilities are better understood. If they cannot participate directly, their role should be simulated.

Observation 7.5 AREA FOR IMPROVEMENT: Code Enforcement was not consistent for damaged buildings.

Source: WRHSAC AAR Conference

Analysis: There was no clear authority establishing which agency was able to condemn a damaged building.

- **Recommendation:** Clear, concise, well-known guidelines from the State's Attorney General are needed.

Observation 7.6 AREA FOR IMPROVEMENT: Laws and authorities around the use of Incident Management Teams (IMATs) need to be clarified.

Source: WRHSAC AAR Conference

Analysis: Many responders indicated that IMATs would have been helpful in overwhelmed communities. However, home rule is seen as a barrier to implementation because in a multi-jurisdictional event, it is unclear how the teams would be managed.

- **Recommendation:** Review the executive order empowering MEMA to allow the establishment of IMATs. Roles, functions and abilities of these teams need to be clearly defined. Training and exercises regarding the use of IMATs should not be limited to team members but should include all response entities to ensure that the capabilities and responsibilities are well known and understood. Implementation should be included in the long-term strategic plans.

CAPABILITY 8: Prevention and Security

Standard Summary: An Emergency Management Program should encompass prevention responsibilities, processes, policies and procedures.

- The jurisdiction shall develop and implement processes to prevent incidents. Prevention processes shall be based on information obtained from Section 4.3, intelligence activities, threat assessments, alert networks and surveillance programs and other sources of information obtained from internal and external stakeholders.
- The jurisdiction shall have a strategy among disciplines to coordinate prevention activities, to monitor the identified threats and hazards, and adjust the level of prevention activity commensurate with the risk.
- Procedures shall be developed to exchange information among internal and external EM Program stakeholders to prevent incidents.

Observation 8.1 AREA FOR IMPROVEMENT: Physical Security: The state law enforcement mobilization plan was not activated, and looting did occur.

Source: Interviews

Analysis: It was well known that many Mass State Police were positioned in the Basketball Hall of Fame parking lot in Springfield. Unfortunately, the perception was that the asset was needed in the local communities but was at the Hall of Fame "for political reasons" as a show of force. Local communities were frustrated that they could not gain access to the perceived underutilized resource. The problem was manifested at the airport in Southbridge, which took a direct hit. Planes were damaged allowing access by looters who were stealing expensive components. Southbridge also had a shooting in town the day before the tornado, so security was a top concern. The IC asked for a security supplement and was told the National Guard

would be positioned at the airport, but because of the shooting, only armed Military Police with bulletproof vests would be utilized. The request wasn't realized until Saturday, 3 days after the tornado. The perception was that it would have been easier to get State Police assistance if the state law enforcement mobilization plan had been activated. After the event, it was also pointed out that Worcester County Sheriff's Officers were not called upon to provide support and could have been a useful resource.

Photo Credit: Senior Airman Eric Kolesnikovas

- **Recommendation:** The process for communication of law enforcement needs between the impacted community and the state should be clearer. These types of requests should be exercised.
- **Recommendation:** The circumstances required for the state law enforcement activation plan to be put in place should be communicated to the regions and local officials.
- **Recommendation:** All available resources for law enforcement should be considered. SOPs should be developed that contain "triggers" for the mobilization of specific assets.

Observation 8.2 AREA FOR IMPROVEMENT: It was difficult to determine who had the right to be in the impacted area because no formal credentialing system was in place across the impacted area.

Source: Interviews

Analysis: Determining who had the right to be in the impacted area was challenging, especially when it came to volunteers, but it was also a concern for uniformed officials as well. There was no consistent credentialing protocol or process for granting access to the incident scene. However, concern was voiced that controlling the area too tightly could keep out volunteers who were assisting homeowners in clearing their property.

In the town of Brimfield the Director of the Senior Center became the Director of Relief Services after the tornado. She recognized that volunteers were an important part of the recovery and created a credentialing system on the fly. She asked all volunteers to sign a release form and provided them with a vest and a placard for their vehicle. Local law enforcement agreed to allow anyone with these placards into the impact zone. (More about this effort can be found in the section on volunteers.)

The National Guard took perimeter control very seriously and wanted to see more identification than just the uniform of local police and fire, which created some animosity on the part of these officials. In some towns, the ARC was asked to implement their plan for credentialing and training spontaneous volunteers, but they had a difficult time keeping up with the problem, as hundreds of these volunteers self-deployed throughout the impacted region.

- **Recommendation:** The state credentialing system (including a state-wide law enforcement identification system) should continue to be expanded; currently, only a small number of police have gone through the system. Local governments should consider paying the annual fee associated with the process. (There is recognition that this is expensive.)
- **Recommendation:** A centralized location, similar to the Senior Center that was used in Brimfield, should be established to process all volunteers—especially those unaffiliated with parent organizations. EMDs should consult with ARC to consider what trainings are required before an event. Liability release forms should be developed and be available via the Council's website.
- **Recommendation:** An outreach program should also occur to volunteer organizations to let them know how their members can become credentialed.

CAPABILITY 9: Hazard Identification/Risk Assessment/Consequence Analysis

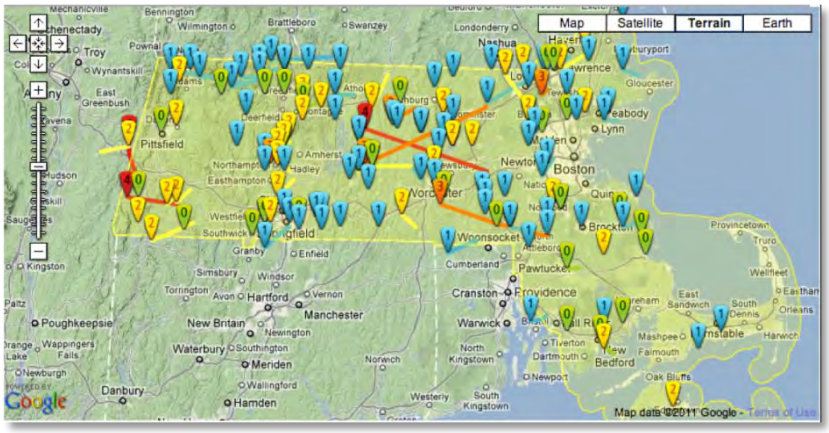
Standard Summary: An Emergency Management Program should have completed a Hazard Identification, Risk Assessment (HIRA) and Consequence Analysis, including responsibilities and activities associated with the identification of hazards and assessment of risks to persons, public and private property and structures.

- The Emergency Management Program shall identify the natural and human-caused hazards that potentially impact the jurisdiction using a broad range of sources. The Emergency Management Program shall assess the risk and vulnerability of people, property, the environment, and its own operations from these hazards.
- The Emergency Management Program shall conduct a consequence analysis for the hazards identified in 4.3.1 to consider the impact on the public; responders; continuity of operations including continued delivery of services; property, facilities, and, infrastructure; the environment; the economic condition of the jurisdiction and public confidence in the jurisdiction's governance.

Observation 9.1 AREA FOR IMPROVEMENT: The identification of tornadoes as a hazard and communication of that hazard to elected officials was not done well before this event.

Source: Interviews

Analysis: All communities are required to have a Comprehensive Emergency Management Plan (CEMP), which should include tornadoes as a potential hazard. Furthermore, even if tornadoes were identified, in some communities it is acknowledged that only the people who wrote the CEMP know what is in the plan.



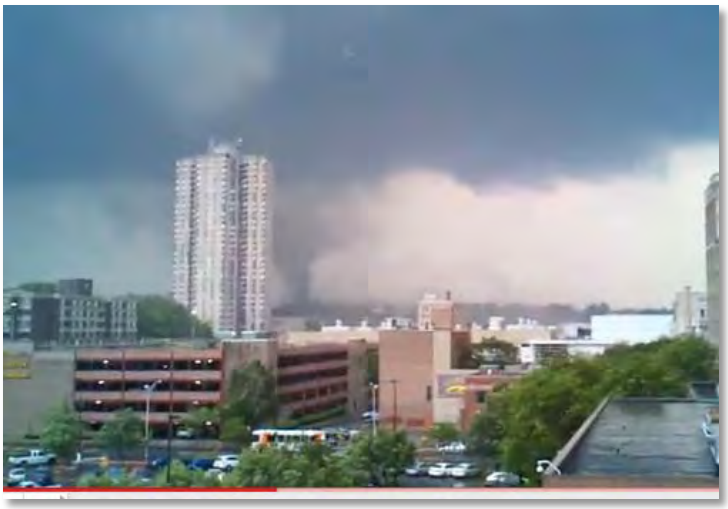
The above map is a visualization of all of the tornadoes to hit Massachusetts since 1951. There have been a total of 152 tornadoes with a combined total of 102 fatalities and 1,359 injuries.

These totals do not include the June 1 tornado outbreak (source: http://www.tornadohistoryproject.com/tornado/Massachusetts). In Springfield, the EMD presented the above hazard map that demonstrates tornado history in Massachusetts to elected officials *before* the event. Other communities are now well aware of the hazard and should plan accordingly.

- **Recommendation:** Communities that have not already done so should conduct Hazard Identification Risk Assessments (HIRA).
- **Recommendation:** The public has a heightened awareness of this potential threat; therefore, a public preparedness campaign should be conducted that informs community members on how they can protect themselves against this particular hazard.

CAPABILITY 10: Emergency Public Information and Warning

Capability Summary: The Emergency Public Information and Warning capability includes public information/education, alert/warning and notification. It involves developing, coordinating, and disseminating information to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines effectively under all hazard conditions. The MEMA "Duties of the Local EMD" states that EMDs should "Establish a method for mass notification in the event of an incident that will impact a large segment of the municipal population."



The EMAP standard is useful in that it emphasizes the plan and the concept of redundancy. "The Emergency Management Program has developed and maintains a plan to disseminate emergency alerts and warnings to the public potentially impacted by an actual or impending emergency and to communicate reliably with the population within its jurisdiction. Communications have been designed for the specific hazards and requirements of the program's potential operating environments, and include redundancy to provide alternative means of warning in case of failure in primary system(s). The plan addresses dissemination of alerts and warnings to vulnerable populations as defined by the Emergency Management Program."

- Warning systems are regularly tested on an established schedule under operational conditions and results documented and addressed.
- The Emergency Management Program has developed and maintains formal written procedures to ensure personnel familiarity with and the effective operation of the systems and capabilities of the Communications, Notification and Warning systems. These procedures address the specific hazards and requirements of the Emergency Management Program's potential operating environments, clearly delineate any decision making processes or triggering events, and are reviewed and updated regularly on an established schedule. The review/update process is recorded and documented.

Observation 10.1 AREA FOR IMPROVEMENT: There was no universal alert capability in the impacted area. People who were not near a radio or television were not warned of the tornadoes.

Source: Interviews

Analysis: Most communities did not consider tornadoes a high threat and therefore had not invested in warning sirens or systems to alert citizens to this type of no-notice event. Emergency Alert System (EAS) messages were distributed to the affected broadcast stations, but there was some indication that local distribution points didn't put out the information right away. It was also reported that the EAS messages crawl on local cable channels was "not great." Citizens could not read the message very well or understand what was being communicated. Furthermore, people who were not near a radio or television were not warned of the tornadoes. Some communities have reverse 911, but it was deemed ineffective for this event since there was not sufficient time to activate the system.

> "I knew nothing about what to do in a tornado. In fact at my school (work) there were disagreements about what to do among the school leaders. I heard about the same issues from other people in other work places. New England is prepared for a lot of things but not tornadoes."

- **Recommendation:** "Alert" measures should be standardized so that they are known to all.
- **Recommendation:** Redundant systems should be utilized to notify people on multiple platforms.
- **Recommendation:** Alerts should also include protective action information.
- **Recommendation:** Tornado drills and citizen protection information should be introduced to schools and other public venues.

Observation 10.2 AREA FOR IMPROVEMENT: For most communities there is no clear plan for reaching the functional and access needs population, including the deaf community, with alert information.

Source: Interviews

Analysis: There was a lack of integration of the deaf community into emergency communications. The state is legally required to have communication with and for the deaf community via simultaneous interpreters and ASL prepared videos, and public service announcements. There was a perceived lack of any of this kind of communication, at the local level.

> A deaf person who was using the local transportation for people with disabilities stated:
> "The PVTA driver appeared not to be aware of the tornado. I was in the van and the tornado went across road by just right after van went thru. We were surprised after my stop and people were pointing to the tornado."Source: http://www.reflexivity.us/wp/2011/10/tornadoes-and-the-deaf-community-in-western-massachusetts/

- **Recommendation:** When planning for alert and notification systems, full consideration needs to be given for the non-traditional population, including the deaf community as well as non-English speakers. A combined training/meeting, in which information is shared and everyone (first responders especially) get practice using interpreters, should be held. This meeting would help determine what system is best for the deaf community, especially when it comes to those items detailed in FCC regulations such as "critical/specific details regarding the areas that will be affected by the emergency; evacuation orders, detailed descriptions of areas to be evacuated, and specific

evacuation routes; and approved shelters or the way to take shelter in one's home, instructions on how to secure personal property, road closures, and how to obtain relief assistance" (source: http://www.fcc.gov/guides/emergency-video-programming-accessibility-persons-hearing-and-visual-disabilities).

- **Recommendation:** An outreach campaign should occur to try to determine who in the community has functional or access needs; and formal ties to local, state and/or national Interpreter Strike Team(s) should be created and maintained.

- **Recommendation:** Where possible, the housing locations of community members with functional and access needs, as well as other "special needs" such as young children, teenagers, pets, transportation challenged and linguistically challenged individuals should be included as a layer of data on any GIS or other mapping tools. The locations should be updated on an annual basis. (See Observation 3.3.)

Two years prior to the tornado one community had identified and mapped all of its senior citizens. "We knew which houses to check after the tornado hit." Fortunately, the storm did not impact that area of town. Lesson—"We will be updating that map and adding people with functional needs!" *Source:* http://www.reflexivity.us/wp/2011/10/tornadoes-and-the-deaf-community-in-western-massachusetts/http://www.reflexivity.us/wp/2011/10/tornadoes-and-the-deaf-community-in-western-massachusetts/

- **Recommendation**: Consideration should be given to low cost alternatives such as SMS text and social media platforms for communications with the deaf community.

CAPABILITY 11: Crisis Communications Public Education and Information

Capability Summary: Under the TCLs this is not separated from the "Emergency Public Information and Warning" capability, where the term public information is defined as:

> "Any text, voice, video, or other information provided by an authorized official and includes both general information and crisis and emergency risk communication (CERC) activities. CERC incorporates the urgency of disaster communication with risk communication to influence behavior and adherence to directives."

We find it useful to make the distinction between the two since public alerts require different resources and tasks than public education.

The town of Brimfield's tornado Relief Center (mentioned earlier) under the direction of Gina Lynch, utilized the numerous volunteers as walking information booths. The center sent people to deliver information to each and every impacted home, every single day. Quick fact: In that town 42 people lost their homes, and 192 homes were impacted.

Standard Summary: An Emergency Management Program should have a crisis communication, public information and education plan and procedures.

- The Emergency Management Program develops and maintains a documented plan and procedures for its public information function. The public information plan is designed to inform and educate the public about hazards, threats to public safety, and risk reduction through various media. The public information plan provides for timely and effective dissemination of information to protect public health and safety, including response to

public inquiries and rumors. Protocols are developed to interface with public officials and VIPs. Procedures include a process for obtaining and disseminating public information materials in alternative formats.

- The Emergency Management Program shall establish an emergency public information capability that includes:
  - a central contact facility for the media;
  - pre-scripted information bulletins;
  - a method to coordinate and clear information for release;
  - capability of communicating with special needs populations; and
  - protective measure guidelines.

- Procedures are in place and tested to support a joint information system and center.
- The Emergency Management program has designated and trained spokespersons qualified to deliver the Emergency Management Program's message, appropriate to hazard and audience.
- The Emergency Management Program provides for information and education to the public concerning threats to life, safety and property. These activities include information about specific threats, appropriate preparedness measures and actions to mitigate the threats including protective actions. Public outreach activities are initiated to ensure that diverse populations are appropriately advised.

Observation 11.1 AREA FOR IMPROVEMENT: Distributing information to the public was a challenge.

Source: Interviews/AAR Conferences

Analysis: Distributing timely information to the public was a challenge throughout the response. Not one community established a Joint Information Center, and most smaller towns do not have designated Public Information Officers (PIOs) experienced in disaster response. Despite these self-reported challenges, some communities did find success in reaching people by holding in-person public information meetings (such as was done in Springfield to a large extent, and in Monson to a limited extent). In Springfield officials held regular community meeting in the affected area of town in order to keep people informed and to answer questions, address concerns, etc. There were at least 2-3 meetings per week, and they were held in different neighborhoods in order to reach all of the affected population.

In Wilbraham, one of the town selectmen started a town Facebook page in order to convey information about the tornado cleanup and recovery effort. This proved very useful. Lighted message boards were also used to communicate information as well as the use of volunteers who literally walked door-to-door to convey vital information. (http://www.facebook.com/pages/Town-of-Wilbraham-Massachusetts-USA/242010670421?sk=wall)

Although the communities were able to cobble together a system to get out information, most felt that it was a struggle and unorganized.

- **Recommendation**: Where possible, individuals should be identified who will act as public information officers during a crisis. These individuals should be trained and participate in exercises.
- **Recommendation**: Communities should put in place procedures to support the implementation of a Joint Information System and JIC. Formation of a JIC should be an objective in future exercises.
- **Recommendation**: PIOs should explore the use of social networking sites for the quick distribution of information to a broad audience.

Observation 11.2 STRENGTH: Emergency vehicles were deployed in Springfield to demonstrate a presence of authority and to provide outreach to the public immediately after the event.

Source: Interviews/AAR Conferences

Analysis: In Springfield, all emergency vehicles were instructed to leave their flashing lights on at night in the impacted neighborhoods to try to reassure citizens (since there was no power, there were no street lights, etc.). Throughout the night fire trucks and other emergency vehicles drove through the city to help folks with "anything that came up," such as putting tarps up on roofs.

- **Recommendation:** None

Observation 11.3 AREA FOR IMPROVEMENT: Getting information to the public about what debris could and could not be picked up was challenging.

Source: Interviews/AAR Conferences

Analysis: Some communities struggled with communicating the rules to citizens regarding what was and wasn't eligible for free debris removal. This was reportedly difficult since plans for this type of communication including pre-scripted messages or templates were apparently not completed before this event. Towns, however, did manage to put out the message through many different communications platforms including local public access shows; the local paper; sign-boards; their website; and for one community**,** Facebook.

- **Recommendation:** Disaster debris management plans should include a plan for communicating with residents on debris management issues and the coordination of those public notices. The plan should include a multi-modal approach to communications in order to take advantage of multiple outreach channels.
  - See the Debris Management Plan of the City of Westborough Appendix 1 for examples and sample messages. http://www.town.westborough.ma.us/Public_Documents/WestboroughMA_Health/DisasterDebris/DisasterDebrisMcombinedplan.pdf.
  - See also "Disaster Debris Management Planning Guide: MassDEP "Communication and Outreach." http://www.mass.gov/dep/recycle/laws/policies.htm#disaster
- **Recommendation**: Alternate means of communication should be explored including the use of video sharing sites such as YouTube and Vimeo to distribute "how-to" videos. It is free to post to these sites, and community members can easily share the information with others via their own social networks. Some of this information

(such as the debris management info-graphic) could be created by the state in advance of an incident.

Observation 11.4 AREA FOR IMPROVEMENT: Citizens needed information about legitimate building contractors.

Source: Interview

Analysis: Citizens had legitimate concerns regarding their decisions on hiring contractors to repair their homes or businesses. Residents whose homes or apartments were damaged needed the services of a contractor and were eager to find one. There were some cases of phony contractors using this event as an opportunity to make fast money and gouge citizens. Some homeowners used the Better Business Bureau as a clearinghouse for information regarding who was legitimate. In Springfield, the workman's compensation agency also tried to keep track of legitimate contractors vs. those that were working without the proper certifications, etc.

- **Recommendation:** Information regarding ways to avoid being scammed should be pre-scripted for ready distribution. For example, information FEMA gives citizens includes:
  - Use licensed local contractors, ask for references and check them before entering into a contract.
  - Ask for a written estimate from at least three contractors, including labor and materials. Read the fine print.
  - Make sure the contractor carries general liability insurance and workers' compensation. If he or she is not insured, you may be liable for accidents that occur on your property.
- **Recommendation**: A way to share pre-scripted messages and information bulletins for ready distribution should be explored by MEMA (potentially at the regional offices).
- **Recommendation**: Pre-event coordination and planning for this information dissemination should occur with community partners including the Better Business Bureau.

Observation 11.5 AREA FOR IMPROVEMENT: Public transportation routes were disrupted, and more people than ever needed to rely on the system due to a large number of private vehicles being damaged. A plan to communicate service changes was not in place.

Source: Pioneer Valley Transit Authority (PVTA)

Analysis: PVTA provided assistance in evacuating residents to shelter locations for several weeks including moving people from one shelter to another. In addition, several PVTA bus routes were impacted by the debris and road closures. Communicating service changes and transportation for victims to shelters was difficult.

- **Recommendation:** How to best communicate service changes and transportation for victims to shelters should be reviewed and included in operational and communication plans. Social networks should be explored as an option.

CAPABILITY 12: Operational Planning

Standard Summary: Emergency Management Program should have plans in place, which describe emergency response; continuity of operations; continuity of government; and recovery from emergencies or disasters.

- The Emergency Management Program, through formal planning processes involving stakeholders, has developed the following plans: communications (see 4.10.1), emergency operations, recovery, continuity of operations, and continuity of government. The process addresses all hazards identified in Chapter 4.3, and provides for regular review and update of plans.
- The emergency operations plan, communications, recovery, continuity of operations and continuity of government plans shall address the following: (1) Purpose, scope and/or goals and objectives (2) authority (3) situation and assumptions (4) functional roles and responsibilities for internal and external agencies, organizations, departments and positions (5) logistics support and resource requirements necessary to implement plan (6) concept of operations (7) plan maintenance.
- The emergency operations/response plan shall identify and assign specific areas of responsibility for performing essential functions in response to an emergency or disaster.
- The recovery plan or strategy shall address short- and long-term recovery priorities and provide guidance for restoration of critical functions, services, vital resources, facilities, programs, and infrastructure to the affected area.
- Continuity of operations plans (COOP) shall identify and describe how essential functions will be continued and recovered in an emergency or disaster. The plan(s) shall identify essential positions and lines of succession, and provide for the protection or safeguarding of critical applications, communications resources, vital records/databases, process and functions that must be maintained during response activities and identify and prioritize applications, records, processes and functions to be recovered if lost. Plan(s) shall be developed for each organization performing essential functions. The plans address alternate operating capability and facilities.
- The continuity of government (COG) plan shall identify how the jurisdiction's constitutional responsibilities will be preserved, maintained, or reconstituted. The plan shall include

Photo Credit: Barbara Bresnahan, Tolland Patch

identification of succession of leadership, delegation of emergency authority, and command and control.

Observation 12.1 AREA FOR IMPROVEMENT: Some communities did not have debris Management Annexes in their Emergency Management Plans that were adequate for this disaster and were unfamiliar with guidance available from Massachusetts Department of Environmental Protection.

Source: Interviews

Analysis: The amount of vegetative debris left in the path of the storm was immense. However, some local plans did not include robust debris management annexes, and if they did, this part of the plan was rarely exercised pre-event. People reported this as a deficit. Some communities also lacked SOPs, which would have helped clarify roles and functions. It was also reported that some EMDs and DPW Directors were unaware until several days into the event that a Statewide Contract for Disaster Debris Management and Monitoring Services was in place.

- **Recommendation:** Local emergency plans should include a debris management annex that includes SOPs clarifying roles and functions. All communities have unique circumstances that impact their responses to disaster events, based on local business/industry, land use, size of the community, topography, economics, etc. The community must address those unique circumstances during the development of the plan. The Massachusetts town of Westborough's Disaster Debris Management Plan guidance and checklists should be used as a best practice example: http://www.town.westborough.ma.us/Public_Documents/WestboroughMA_Health/DisasterDebris/.

- **Recommendation:** The management of disaster debris needs to be incorporated into exercises with participation from local DPWs and the state DEP.

Observation 12.2 STRENGTH: Most communities had pre-designated debris disposal sites.

Source: Interviews

Analysis: Pre-selected sites for organic debris disposal proved very helpful by eliminating that decision-making process from the response.

- **Recommendation**: None

Observation 12.3 AREA FOR IMPROVEMENT: MOUs between the Transit Authority and each community were not in place prior to the disaster.

Source: Pioneer Valley Transit Authority (PVTA)

Analysis: MOUs were not in place between PVTA and each community it serves prior to the tornado event. It appears communities had not taken the requirement seriously; for example, PVTA sent Springfield a draft MOU 2 years ago, but it was only approved in August 2011. This approval was necessary in order for PVTA to be reimbursed by MEMA. Documenting the MOU is very important since it provides all parties with an understanding of resources available and response time information.

- **Recommendation:** MOUs need to be in place between PVTA and each community it serves.

Observation 12.4 AREA FOR IMPROVEMENT: The city of Monson was impacted directly, which fully tested its COOP plans. Continuity of personnel was also tested due to new and unavailable personnel.

Source: Interviews

Analysis: Monson was impacted directly including the police department, the 911 dispatch center and city office buildings. Complicating matters, three town volunteer Board of Selectmen (BOS) members were all fairly new to their jobs, and the Emergency Manager was out of state. The out-of-state EMD advised the BOS to appoint an acting EMD. However, this action was not communicated by the BOS to the EOC/IC and partners including MEMA, which created confusion.

- **Recommendation**: State plans should address how to assist local communities by providing additional professional emergency planning personnel to assist town officials (First Responders, IC and EMS were all on track) with understanding of the ICS/NIMS, resources, timelines and the emergency management system in general.
- **Recommendation**: Communities should exercise COOP locally, regionally and statewide at least annually.

CAPABILITY 13: Communications

Standard Summary: An Emergency Management Program should have a communications plan that provides for using, maintaining, and augmenting all of the equipment necessary for efficient preparation for, response to and recovery from emergencies.

- The Emergency Management Program has developed and maintains a plan to communicate both internally and externally with all Emergency Management Program stakeholders (higher, laterally and subordinate) and emergency personnel; system interoperability has been addressed in the development process.
- Communications have been designed for the specific hazards and requirements of the jurisdiction's potential operating environments, is sufficiently robust to support all components of the response and recovery plans, and includes redundancy to provide alternative means of communications in case of failure in primary system(s).
- Communications systems are regularly tested on an established schedule under operational conditions and results documented and addressed.

Observation 13.1 AREA FOR IMPROVEMENT: The amount of call traffic immediately overwhelmed the networks.

Source: Interviews/AAR Conferences

Analysis: Land-lines were quickly overwhelmed with call traffic, rendering them useless throughout a large portion of the impact area.

> "After the tornado I really had the ear of my elected officials. I could never get them to focus on any of this emergency management stuff before the event, but now, they really want to learn more about it."
>
> —Local EMD

- **Recommendation:** A public education campaign "Text, Don't Call" should be implemented at all levels of government—similar to the campaign conducted by FEMA. This campaign encourages members of the public to send text messages to friends and family after a crisis. Text messages only take up a fraction of the bandwidth of a call, freeing up lines and towers for emergency services.

Observation 13.2 AREA FOR IMPROVEMENT: The communications infrastructure in some communities is aging and can withstand only very limited stress.

Source: Interview

Analysis: Monson town officials deemed their communications infrastructure as "primitive at best" due to a reliance on copper lines. Therefore, these officials see the need for a "plug and play solution" in order to more rapidly recover after an incident has compromised the existing communications infrastructure. These system vulnerabilities—phone lines/electric lines—demonstrate the need for redundancy. During the immediate aftermath of the storm, some amateur radio operators did help provide communications.

- **Recommendation**: Plans should include redundant means of communications in the likely case of failure in primary system(s). The use of amateur radio operators should be further explored as a low-cost redundant system.

Observation 13.3 AREA FOR IMPROVEMENT: Fire Service intra-discipline interoperability was seen as a success; however, inter-discipline interoperability was problematic.

Source: MEMA AAR Conference/Interviews

Analysis: The fire services have 3 frequencies that they can use to communicate with any other fire service, however interoperability with other response agencies, especially those providing Mutual Aid (as well as volunteer organization such as the Salvation Army) proved a challenge. As one small example, the Salvation Army noted that they had the necessary radio equipment, but that they operated on a different frequency than the Fire Departments they were trying to assist (with food and drinks). It was noted that additional channels were needed.

The Western Region has recently received a cache of Harris Unity full spectrum radios that support both digital APCO P25 secure and analog FM communications across the VHF, UHF, 700 MHz and 800 MHz bands in a single portable radio. They are seen as a way for responders to communicate with multiple jurisdictions and agencies operating on many different frequencies and systems. These radios were not available during the tornado response, but now that the assets are in-hand, these new systems should be fully deployed and incorporated into inter-discipline testing, training and exercising in order to make sure personnel know how to use them to their fullest capacity.

- **Recommendation**: Complete an analysis of what communications each community currently uses and begin to consider moving to a regional system that allows the towns to consolidate systems. On a local basis, determine what resources need updating to allow for better interoperability with outside agencies.
- **Recommendation**: Working regionally, develop a communications plan that allows for the expansion outside the community to include regional, state and federal resources. The COMML statewide interoperability coordinator at MEMA was a useful resource in the past. The position is currently vacant, but should be filled in order to facilitate this necessary coordination.

The fact that the back-up 911 center was being used by Springfield prior to the tornado was initially not well understood by officials in the town of Monson—which lost its 911 center in the storm. Although the town initially repeatedly requested this resource, as one official stated: "No one ever said they had the equipment but that it was elsewhere." This lack of communication between the state and the community created unnecessary frustration and ill will.

- **Recommendation**: Fully deploy Harris Unity radios and incorporate them into inter-discipline testing, training and exercises in order to make sure personnel know how to use them to their fullest capacity.

Observation 13:4 AREA FOR IMPROVEMENT: Communications and Resource Management for 911/local Public Safety Answering Point (PSAP) requires redundancy.

Source: Interviews

Analysis: In Springfield, the primary 911 center was operating in its temporary back-up trailer arrangement as provided by the State 911 Department. Because that was the only back-up trailer in the state it meant no other PSAP could use it, as was the case when the Monson 911 center was directly impacted by the storm. If the back-up 911 system had been destroyed, Springfield would have also been left without a long (or even short) term 911 back-up solution. On paper, a backup exists to 911 centers, but in reality it is not operationally robust enough to handle more than 100,000 911 calls a year.

- **Recommendation:** The largest city in the area (Springfield) needs to work with the state to outfit the current 911 backup center to be able to meet the needs of Springfield's 911 calls. This discussion should include costs—which may be difficult for the city given the current budget constraints.
- **Recommendation:** The state should consider expanding its emergency resources to a second piece of apparatus—maybe something more (or less) mobile that could be deployed faster for short periods of time (or deployed more slowly with notice, but for longer periods of time).

Observation 13.5 AREA FOR IMPROVEMENT: Sharing information among all response actors and stakeholders was difficult.

Source: Interview

Analysis: There was difficulty in getting current "real time information" shared among all of the response actors: this included actions needed and actions executed. (This issue was also noted in the section on Mutual Aid.) This problem crossed over into areas such as public health. As one public health official noted, "We don't have radios, we had no way of communicating the first day." This official suggested an information central command center, which brings to mind the WebEOC application. However, WebEOC is designed for use in an Emergency Operations Center. In the EOC, WebEOC can be used to communicate situation status and maintain a log of activities. However, people such as the Director of Public Health have not had training on the tool. Access to computers in shelters, for example, is also limited. It is also important to keep in mind that WebEOC is not an easy system to learn and to maintain operational proficiency by those who may only need it for major regional disasters.

Daily Briefings Prove Their Worth: Although information sharing was problematic with regard to mutual aid, and even to some extent from the local level to the state, most communities were able to share information among their own response actors and volunteers fairly well, especially after the initial 24 hours. In those towns that implemented the practice, morning and afternoon conferences allowed for all actors to share their current and planned activities. Elected officials were involved in these briefing and found them "invaluable."

- **Recommendation:** A plan should be developed that includes how EMDs and the response community can communicate with all EM program stakeholders.
- **Recommendation:** A GIS with the ability for local control, which has been suggested in Observation 3.3 as well as other parts of this document, could be

developed and used for routine, day-to-day jurisdictional operations so that when a jurisdictional or regional disaster calls for Situational Awareness, Resource Management and a Common Operational Picture it would be ready to "ramp up." This system would need to be supported by individuals who are knowledgeable about its operation.

Observation 13.6 AREA FOR IMPROVEMENT: Communication with power companies to each local community could be improved.

Source: Interview

Analysis: Some communities felt that they could have had better communications with the power companies regarding their activities. However, since these companies were operating in such a large area for this multi-municipality, multi-regional event, providing a liaison to each community's EOC was not feasible. NEDRIX, for one, did provide a representative to the state EOC. All utility providers activities could be made available to local first responders and EMDs via situational awareness/information sharing platforms, such as WebEOC.

- **Recommendation:** Power company activities should be made available on situational awareness sharing platforms, and representatives should continue to be included on twice daily state or regional conference calls.
- **Recommendation:** Power companies should be required to provide outage reports, including specific areas affected to local public health, home healthcare agencies and hospitals so that this information can be overlaid on the "special needs" data to identify individuals who may be in need of generators, transportation to shelters, etc.

Observation 13.7 STRENGTH: A private sector communications provider assisted one community by providing communications equipment.

Source: WRHSAC AAR Conference

Analysis: In Monson, the Police Department and Fire Department had communications within a day due to the donation by a private sector communications provider, Verizon, of a cache of push-to-talk phones.

- **Recommendation:** none

CAPABILITY 14: Mass Care/Sheltering

Capability Summary: Mass care is the capability to provide immediate shelter, feeding centers, basic first aid, bulk distribution of needed items, and related services to persons affected by a large-scale incident. Mass care is usually provided by nongovernmental organizations (NGOs), such as the American Red Cross, the Medical Reserve Corps, the local Public Health Agency or a combination of all three.

- Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs and others who may be considered to be at-risk.
- Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population.
- Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

MEMA "Duties of the Local Emergency Management Director": The EMD should establish and maintain an emergency shelter system. This involves coordination with volunteer agencies, local transportation coordinators and private sector resources.

Source: Michael S. Gordon, *The Republican*

Observation 14:1 AREA FOR IMPROVEMENT: Coordinating shelter volunteers proved problematic for some communities. Numerous shelters were open in the area, and it was difficult to obtain information regarding their overall status and what human resources were needed at each shelter at the multi-jurisdictional level. It was also difficult to determine shelter and staffing needs for each shelter individually.

Source: Interviews and Springfield Department of Health and Human Services Tornado PowerPoint Presentation

Analysis: Shelter coordinators reported that it was difficult to get the true picture of where volunteers were needed, their availability and schedule for work (including those that wished to work and those who had made a commitment to work). Survivors were in the shelters for a long period of time (some officials thought they were there too long), and this eventually led to some shelters experiencing a perceived shortage of licensed staff. This problem was compounded for some shelters that did not have a system in place for deciding staffing schedules. "Who's in charge and can make that decision?"

Deciding who was in charge was complicated by the fact that each volunteer organization (such as MRC and ARC) brought its own leadership teams, which did not normally work together. Without a merged leadership team, the end result was staffing confusion with too many volunteers for one shift and too few for others. The problem of not having good situational awareness of the volunteer and shelter needs was attributed to not having a central clearinghouse for information, such as a central "staffing center." Although the American Red Cross had staff at the ESF#6 desk at MEMA, there was a perception that they only reported ARC activities. This could have resulted in inaccurate information overall regarding shelter staffing (particularly during the early days of the response).

> "Conflicting information was coming in and communication and coordination was difficult." —MRC

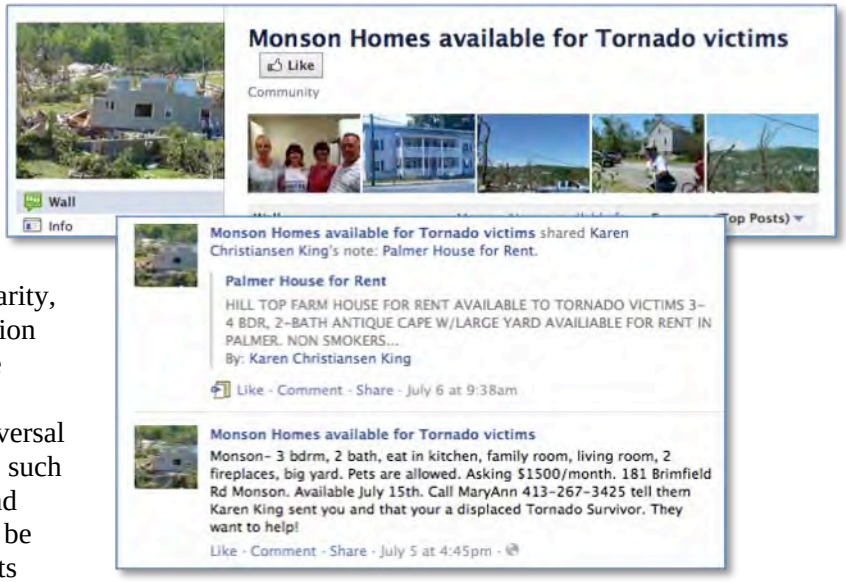
Furthermore, there was no working system to track who was coming to the shelter to provide care, what their capabilities might be, nor even who was "in charge" at any given time. The names scribbled onto white boards were out of date and incomplete. The registration book at the front table was not current. Police who sat at the desk, when asked who was in charge stated "MRC"; yet in questioning the volunteers they did not know but did not feel it was the MRC. Job Action Sheets were on site in some cases, but the staff was not always told that they existed, where to find them, and what kinds of functions were actually needed during a given shift. There was little monitoring of who was coming and going and what they were asked to do. Volunteers shared that they actively sought out activities, as they were not always given clear direction.

- **Recommendation**: An effective collaborative model for decision-making in the shelters should be designed and implemented. This model should be expandable to ensure the incorporation of all volunteer agencies. This structure should be determined before an event, trained and tested in an exercise.
- **Recommendation**: Monthly conference calls between ARC and MRC should occur to build relationships.
- **Recommendation**: A regionally based system for volunteers to sign up for shifts should be established. The system should help leadership ensure that key personnel are present for each shift in each of the shelters across the entire impacted area. The system should have a web-based and interactive component, if possible. A web-based platform would allow individuals to check the schedule on days when they are not physically in the shelter, and an interactive platform would allow team members to communicate with each other through the site. (This would be especially useful for longer, protracted events). There are a multitude of low-cost or free solutions, such as social media platforms, or even Google docs, that allow for private groups to be formed. Some platforms even provide a way to track hours on mobile devices. (See examples such as "volunteersignup.org" or "volunteerspot.com.")
- **Recommendation**: A sign-in, sign-out system needs to be established for all volunteer workers in the shelter in order to ensure it is always known who is on site. Shift change procedures should be considered, which include the introduction of all team members and a description of their roles and responsibilities.
- **Recommendation**: Shelter volunteers should train together (e.g., ARC and MRC) and have an understanding of the other organizations' policies, protocols and procedures, such as activation/deactivation.
- **Recommendation**: Staffing options of the ESF#6 desk at MEMA headquarters should be explored in order to ensure that all shelter volunteer information is represented.
- **Recommendation**: Shelter training, in order to increase the number of individuals available to staff shelters for multi-regional events, should be continued and expanded.
- **Recommendation**: A system for identifying credentialed volunteers for each shelter, either with badges or clothing such as vests, should be established.
- **Recommendation**: Shelter operations, including volunteer staffing, should be included in exercises.

Observation 14.2 AREA FOR IMPROVEMENT: There was a need for more coordination of economic services for survivors in the shelters.

Source: Interview

Analysis: People in the shelter were seen by many different organizations (e.g., ARC; HAP Housing-Springfield; Lutheran Social Services; Jewish services; West Springfield housing; different church groups; disaster food stamps; and disability insurance), and it seemed that none of these services were coordinated. This resulted in individuals being asked to fill out paperwork on numerous occasions, and for those shelter occupants that were new immigrants this became confusing. It also resulted in people starting to refuse to sign forms. "Coordination was a huge problem." Coordination is not just a concern for weary shelter occupants; it is also expensive to keep people in a shelter waiting for housing and for services to become available.



- **Recommendation:** Public health agencies should incorporate more volunteer organizations (such as faith-based organizations) into trainings and exercises in order to increase familiarity, coordination and cooperation with the personnel and the services they offer.
- **Recommendation:** A universal form for shelter occupants such as "Access to all Social and Donated Services" should be explored. Shelter occupants would be asked to fill out the form on a computer (aided by a volunteer if necessary) just once. At this time the survivor would indicate which community organizations (both government and NGO) would have access to the data. HIPAA regulations and privacy concerns would need to be addressed, but can be done in part via this process. Other states, including Washington, are exploring this type of system.

Observation 14.3 AREA FOR IMPROVEMENT: Coordination of organizations identifying housing for displaced individuals did not occur.

Source: Interview

Analysis: There was no a common operating picture for organizations looking for housing for displaced individuals, and the myriad of organizations that were working on the issue didn't seem to share information very well. In West Springfield, this manifested in three or four different volunteer services working with the same landlord for a single property, in more than one instance. One volunteer even made the comment that "a unified central database of available homes would have been helpful." FEMA has a "Direct Assistance, Replacement Assistance Consideration database"; however, this resource was not well known or utilized.

Relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes was provided for people in the shelters, but those staying with friends and family appeared to have not been given the same amount of consideration. Furthermore, this was particularly challenging for the many smaller communities with limited rental housing stock and no housing department/personnel in local government.

In Monson, there didn't appear to be any organization working on the housing issue since they did not have an operational EOC, and there was no designated local ESF#6 coordinator. It was reported that the Disaster Resource Center did not have a single point of contact to assist people with finding suitable housing. The FEMA representative told one volunteer that finding housing "wasn't their job." The task, therefore, seemed to fall to a volunteer, a local realtor who had no former experience with disaster assistance. This volunteer personally placed 30 families and utilized social media to assist in her effort—over 350 people signed up to follow the "Monson Homes available for Tornado victims" Facebook page. People without homes (and therefore computers) were able to access the site via donated computers in the First Monson Church, which operated as the town's relief center. This volunteer also provided a "fact sheet" indicating what resources were available to impacted citizens (including tax benefits, FEMA funds, HUD eligibility requirements). Individuals who had properties to rent contacted the volunteer, and she posted the location, description and price on the Facebook page. Most of the properties had the stipulation "For Displaced Survivors Only." Displaced community members used the page as a resource—an online version of a bulletin board in the disaster relief center.

This is also an area where MEMA could have been helpful to the Incident Commander and the Board of Selectmen, by informing them of resources to fit the needs rather than relying on the magical appearance of an incredibly resourceful community volunteer to find housing.

- **Recommendation**: Communities should identify a strong ESF#6 coordinator that is able to provide the necessary coordination among non-traditional and newly formed voluntary agencies, existing social service agencies, and other government agencies with formal coalitions such as VOAD and Long-Term Recovery Committees. Nontraditional voluntary agencies include groups that form in response to a particular event.
- **Recommendation:** Communities should explore utilizing social networking to connect individuals who need housing after a crisis. Policies, procedures and liability should be part of this analysis.

Observation 14.4 AREA FOR IMPROVEMENT: Hospital patients were released to shelters that weren't equipped to readily deal with wounded and ill individuals.

Source: Interview and Springfield Department of Health and Human Services Tornado PowerPoint Presentation

Analysis: Some shelters occupants were brought to the facility from the hospital clearly in need of more care, some with wounds (which came to be called "hospital dumping"). The questions became: What do we do with these people? Who is willing to take them? Some shelters were better equipped to deal with individuals requiring more care than others. For example, the shelter in Springfield did treat patients with a robust Medical Reserve Corps staff. They provided care in two phases: the first phase included immediate care to those with wounds

and trauma. The MRC staff also provided blood pressure tests, blood glucose tests, pregnancy tests, insulin as needed, infant formula, milk, wheelchairs, walkers, crutches, socks and diapers. During the second phase, the MRC in Springfield transitioned to delivering health maintenance/prevention and infection control including the development of a system of transportation services for residents needing prescription refills, doctors appointments, and specialist and laboratory appointments.

- **Recommendation:** A discussion between all stakeholders should occur regarding what level of care is expected in the shelters for individuals who are ill.
- **Recommendation:** Emergency Preparedness training provided a solid foundation for volunteers. These trainings should continue.

Observation 14.5 STRENGTH: Interpreters for non-English speakers were found in the community via both non-profit faith based organizations and via community health.

Source: Interview
Analysis: Most of the shelter occupants in West Springfield were newly arrived immigrants who spoke little or no English. A faith-based organization, Lutheran Social Services (LSS), provided interpreters for the shelter population and also helped facilitate finding housing as well. The Baystate Medical Facility also assisted in providing translators. Most landlords require background checks and LSS helped smooth this process, which is complicated with new arrivals in this country.

Shelters: The Big "E" shelter and the Springfield Mass Mutual Center Shelter were open for the longest period of time of all the shelters in the impacted area. The Mass Mutual Center closed on June 29, 2011, and the Big "E" closed on July 1, 2011.

- **Recommendation:** None

Observation 14.6 AREA FOR IMPROVEMENT: Although shelter locations were pre-identified, some shelters were not ready to accept occupants for this no-notice event.

Source: Interview/MRC Debriefing Meeting Report
Analysis: Identifying shelters that could operate for a long period of time proved a bit of a challenge in the first phase of the response, resulting in shelter occupants being moved numerous times. School was in session, and in one community people objected to shelters being placed inside of an operating school. One community tried to open a shelter in the local school only to find that the generator did not function, so an alternate location had to be quickly identified. In Springfield, occupants had to be moved from the Mass Mutual Center to a less desirable location after only one night due to the nature of the no-notice event. Occupants were moved back to Mass Mutual 3 days later. Other shelters had problems with supplies. As an example, food was given to them to distribute, but the facility was not equipped with serving utensils.

- **Recommendation:** Designated shelters should be periodically checked for appropriate supplies, including vital items such as operating generators.
- **Recommendation:** Communities should continue to review shelter locations annually and ensure

school boards and facility managers are aware of the full implication of their commitment.

Observation 14.7 AREA FOR IMPROVEMENT: There were numerous shelter occupants who had very severe religious dietary restrictions. How to feed that population became a point of contention.

Source: Interviews

Analysis: Food was not available in the one shelter for people who had special religious diets. Most of the food was from the school department, which was paying for the commodities, labor and transportation. Shelter occupants refused to eat most of the provided food, and therefore volunteers tried to make accommodations by bringing in food donated by a nearby church. However, the public health department was concerned that this food was not suitable because it did not come from a certified kitchen. In the end, home-cooked food was brought to these individuals, and they ate it in the parking lot; they were not allowed to bring the food into the shelter. Other food donations from the community were also not allowed. It is possible that the solution that was ultimately settled on was the most appropriate, however, considerable vexation about this issue remains with those who were involved.

- **Recommendation:** A discussion at the local level should occur with all stakeholders regarding what flexibility, if any, should be allowed regarding feeding populations with dietary restrictions.
- **Recommendation:** The American Red Cross at the national level will be releasing guidance on this issue early next year, and it should be reviewed.

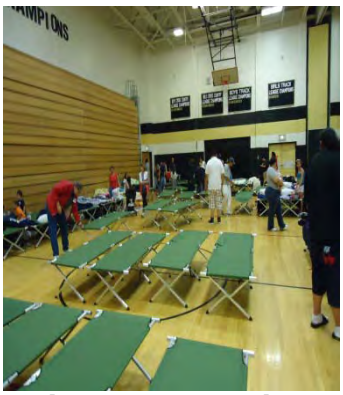
Observation 14.8 AREA FOR IMPROVEMENT: There was a distinct need for mental health services in the shelters.

Source: Interview/MRC Debriefing Meeting Report

Analysis: Children in the shelter were very distressed by what had occurred (quite a few had lost their homes and all their belongings) and it was determined that mental health specialists were needed. However, obtaining appropriate services was difficult.

- **Recommendation:** Mental health specialists in the community often volunteer their time to assist after a disaster, especially if this type of need is well understood. MRCs should continue to explore how to solicit this type of volunteer pre-crisis in order to provide those individuals with the proper credentialing and any necessary training.

Observation 14.9 AREA FOR IMPROVEMENT: The cots that were made available were not made of good quality materials and were "falling apart" after one use. Cots designated for people with access and functional needs were not suitable.



Source: Interview/Department of Public Health

Analysis: Ensuring people with access and functional needs have a way to obtain services and/or necessary equipment in the shelter is required by law. The cots that were designated for these individuals, however, were not sufficient, according to Public Health officials. The cots for the general population were not of good quality either; they were buckling, tearing and ripping after just one use. The cots that were purchased were "military-type" vs. military specification. The military-spec cots are much more durable and can be used more than once.

Cots also need to be properly stored to ensure they will not deteriorate over a shorter period of time. Heat and cold will break down the materials.

- **Recommendation:** Before replacement cots are purchased, the Region should determine which cots are recommended by public health officials both for general population and for people with functional and access needs.
- **Recommendation:** Guidelines need to be developed that detail how to properly store cots.

CAPABILITY 15: Volunteer and Donations Management

Capability Summary: Volunteer and Donations Management is the capability to effectively coordinate the use of volunteers and donations in support of domestic incident management. According to the EMAP standard, organizations should identify and assign specific areas of responsibility for performing essential functions in response to an emergency or disaster including the handling of volunteers and donations. In particular, these three main areas were identified:

- Credentialing
- Tracking
- Information sharing

The EMAP standard for Resource Management and Logistics also states, "The Emergency Management Program shall have an implemented resource management process allowing for acceptance, management, and distribution of donation of goods and materials, services, personnel, financial resources and facilities either solicited and/or unsolicited."

Observation 15.1 AREA FOR IMPROVEMENT: The East Hampton CERT was deployed prematurely before a clear mission for them was established.

Source: Interview
Analysis: The East Hampton CERT was deployed while the weather was still quite bad. They drove to the Agawam DPW, encountering severe weather along the way, and had to negotiate around downed wires and trees. When they arrived at Agawam they found themselves sitting in the parking lot for hours with nothing to do awaiting orders. They initially thought they would be doing damage assessment but it was 9:10pm, and damage assessment is difficult at night. Two of the CERT members were eventually brought in to help with computer entry for a very brief period. Four other team members were sent to the shelter at Mass Mutual in Springfield, and the others were sent home.

- **Recommendation:** SOPs should be developed that outline when CERTs should be deployed, such as after there is a clear mission and a common operating picture.

Observation 15.2 STRENGTH: CERT was very successful when given a clear mission.

Source: Interview

Analysis: The East Hampton CERT members were given two clear missions in Monson the second day: first, to set up a rehab tent for first responders near the location of heavy damage; and second, to go door-to-door to check on citizens. They were given specific streets to check, radios, and a list of questions to ask the residents. CERT members found that for some residents, the CERT members were the first "officials" the residents had seen since the tornado, and people were very grateful for their presence. CERT members were asked almost as many questions as they posed.

Other towns made similar uses of CERTs. In Southbridge, the debris damage was so heavy on some streets that people could not leave their houses in vehicles. CERT and other volunteers helped by going door-to-door to check on people and to deliver food.

- **Recommendation:** CERTs can be very effective when they have a clear mission. They take their jobs seriously, and are willing to help in any way they can (some of this CERT team even took the day off of work.) Communities that do not use CERT should explore developing this asset further.

Observation 15.3 STRENGTH: Communities that established centralized relief centers found these facilities to be very welcomed by survivors and some became central hubs for donations and spontaneous volunteer management**.**

Source: Interview

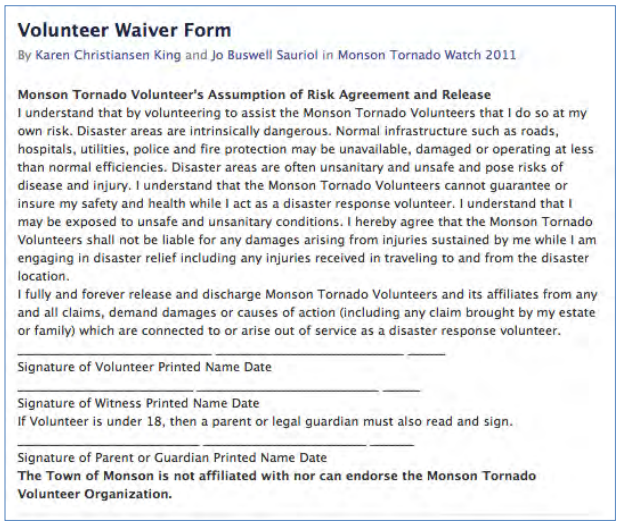
Analysis: Most EMDs indicated that spontaneous volunteers were a huge problem, especially since there was no good way to determine if they were on someone's property to volunteer or do harm. In one town, people posing as volunteers stole items from homeowners. In Brimfield, however, there was clear leadership for spontaneous volunteers from the start. The Director of the Senior Center became the Director of the Relief Center, and she coordinated all volunteer efforts. This effort was done with the knowledge and "blessing" of the town leadership those involved in the response effort. They had a completely centralized effort, and, according to their own assessment: "coordination was the key to success."

Coordinating volunteer efforts. After an initial misunderstanding and duplication of effort in Brimfield, the ARC learned about the relief center and made a good effort to determine what ARC resources would be most beneficial to the town. A mental health trauma team was requested and provided. "The team was great."

What worked:

- **Information Sharing:** The Relief Center staff met with response personnel on a daily basis in order to keep them informed of all of their planned activities.
- **Credentialing**: There were numerous spontaneous volunteers. In order for these people to help affected community members at their homes, the volunteers first had to sign a "volunteer waiver form." This form was modeled after the forms used by the Southern Baptist Disaster Volunteer organization. (A variation of this form was used by Monson volunteers as well, and was placed on the grassroots Monson Facebook page—see graphic below.) The spontaneous volunteers were issued vests and placards for their vehicles, designed to allow for recognition from response personnel and access to impacted areas. They also developed a release form for homeowners. This form stated

that the homeowner allowed volunteers to come onto their property and that they would not hold them liable for damages, etc.



Volunteer Waiver Form

By Karen Christiansen King and Jo Buswell Sauriol in Monson Tornado Watch 2011

Monson Tornado Volunteer's Assumption of Risk Agreement and Release

I understand that by volunteering to assist the Monson Tornado Volunteers that I do so at my own risk. Disaster areas are intrinsically dangerous. Normal infrastructure such as roads, hospitals, utilities, police and fire protection may be unavailable, damaged or operating at less than normal efficiencies. Disaster areas are often unsanitary and unsafe and pose risks of disease and injury. I understand that the Monson Tornado Volunteers cannot guarantee or insure my safety and health while I act as a disaster response volunteer. I understand that I may be exposed to unsafe and unsanitary conditions. I hereby agree that the Monson Tornado Volunteers shall not be liable for any damages arising from injuries sustained by me while I am engaging in disaster relief including any injuries received in traveling to and from the disaster location.

I fully and forever release and discharge Monson Tornado Volunteers and its affiliates from any and all claims, demand damages or causes of action (including any claim brought by my estate or family) which are connected to or arise out of service as a disaster response volunteer.

_____ _____ _____

Signature of Volunteer Printed Name Date

_____ _____ _____

Signature of Witness Printed Name Date

If Volunteer is under 18, then a parent or legal guardian must also read and sign.

_____ _____ _____

Signature of Parent or Guardian Printed Name Date

The Town of Monson is not affiliated with nor can endorse the Monson Tornado Volunteer Organization.

- **Information Transfer—from old to new media:** The Relief Center in Brimfield became a hub for information sharing. Five stations of information were established, and a greeter at the door first met visitors and directed them to the right station. Bulletin boards were set up in the building for people to post their desire to help and for others to post what they needed. Volunteers were assigned the task of matching up the needs with the offers of assistance. Needs that did not get fulfilled from the bulletin board were posted to a Facebook group page that was established after the storm.
- **Volunteer Utilization and assignments**: Because the relief center was also a senior center they had a built-in corps of volunteers. The seniors were very excited to help.
    - Volunteers were used to cook and distribute food. Health rules (including proper temps and use of gloves, hair nets, etc.) were posted and enforced.
    - Food donations came "pouring" in. They were able to use the food and find additional donations of necessary equipment by posting their requests on social media platforms.
    - The volunteer staff kept a running list of supplies—and one person was assigned to keep inventory.
    - Some volunteers did assessments at private homes to see what kind of help they needed—they then took that information and matched it to donations.

- **Recommendation:** A volunteer and donations management annex should be written into each CEMP plan that includes processes for organizing spontaneous volunteers.
- **Recommendation:** Communities should explore the use of social media platforms for volunteer coordination—especially spontaneous volunteers and donations (region-wide) before a crisis. See examples such as www.rebuildjoplin.org.

Observation 15.4 AREA FOR IMPROVEMENT: The "All Hands Volunteers" organization was ask to coordinate spontaneous volunteers after communities had already developed a structure to accomplish this task.

Source: Interviews

Analysis: There was a disconnect between MEMA's decision to coordinate volunteers through the "All Hands Volunteers" organization and what was already happening in some communities. According to the MEMA Sitreps, All Hands was tasked to "provide volunteer coordination and manage spontaneous and group-affiliated

volunteers. All Hands will facilitate the intake, assessment, assignment, and tracking of requests from parties affected by the tornado in need of volunteer assistance and services."

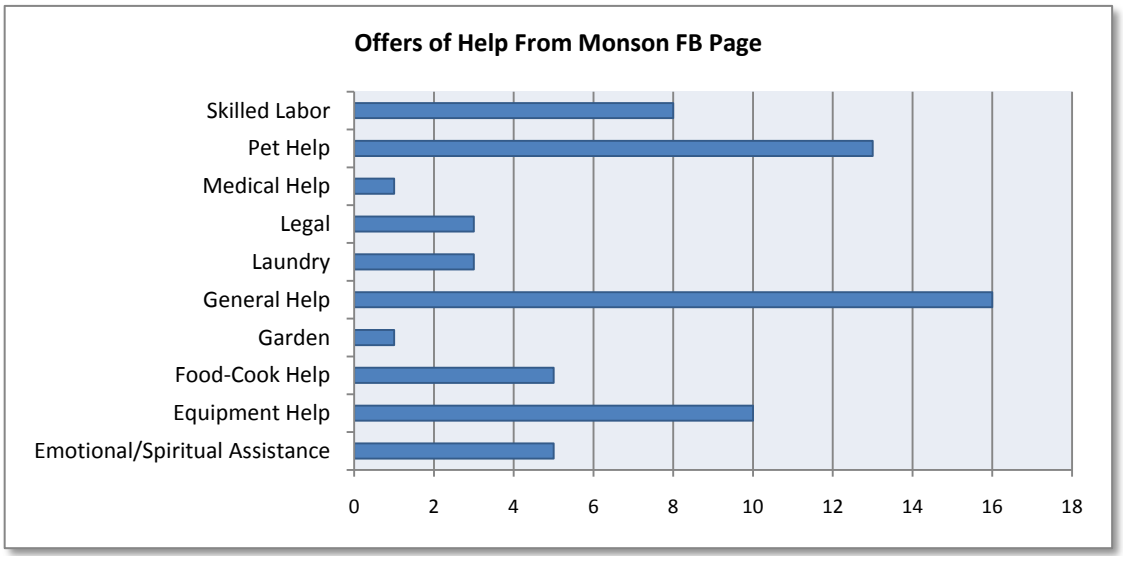
This decision was made fairly late in the response, and many ad hoc groups were already fulfilling this function—groups such as Monson's Street Angels, which became more and more formalized as the event wore on, and the Brimfield Relief Center, described in Observation 15.3. The state's situation reports did not reflect most volunteer activities happening in the communities, and there was not a common operating picture of all volunteer efforts.

- **Recommendation:** ESF#18 Volunteer and Donations Management should be staffed at the local level EOCs. All of the activities being accomplished by volunteers (including spontaneous volunteers) should be communicated to both the local EMDs and to the state.
- **Recommendation:** The state's situation reports should reflect all volunteer activities, including activities of non-affiliated and spontaneous volunteers.

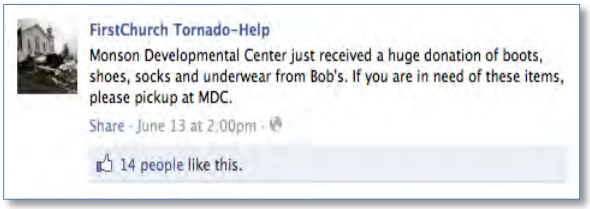
Observation 15.5 AREA FOR IMPROVEMENT: There was a lack of understanding of the innumerable volunteer activities that were being coordinated with the aid of social networking sites.

Source: Interview

Analysis: MEMA and FEMA recognized the need to coordinate volunteers and donations, and the decision was made that 211 would take calls for donations. FEMA's online platform "AidMatrix" was also made available to funnel donations via a web-based interface. However, unofficially, people organized themselves via social media. Monson has just over 8,560 residents, according to the 2010 Census, and over 2,000 of them joined the Facebook group entitled "Monson Tornado Watch 2011." The page became a volunteer hub where people advertised both their needs and their desire to help. The graph below is an example of some of the donations mentioned on that Facebook page on a special "donate" page developed weeks into the response. This page, for Monson alone, had 97 offers.



The graph, however, only represents a fraction of the donations and requests made on a daily basis. The group that became known as "Street Angels" used many different Facebook pages including the First Church Tornado-Help page.



The First Church operated as the Monson Relief Center since they never lost power or Internet service. They could obtain needed items rapidly after they posted the needs to Facebook. One need for tarps was fulfilled literally within 20 minutes of posting to the site. "It was as if we had a bull-horn."

Also, in towns such as Brimfield that developed a robust volunteer coordination system, 211 and "AidMatrix" were not a primary way for people to communicate their needs or provide donations. They also were utilizing a multi-modal approach: social media, face-to-face communications and traditional media. For weeks, there was a complete lack of coordination between the 211 system and the volunteer activities taking place in the communities. In one instance, a person in Brimfield called the number, even though he had a local volunteer group cleaning up debris in his yard. He later said, "I just wanted to see what else I could get." The All Hands volunteers were dispatched to this community and were surprised what was already happening. This incident occurred over 16 days into the response.

In Springfield, the radio station 94.7 WMAS set up a Facebook page that became one of the ways they communicated volunteer and donation opportunities. They also put up a donations resource page on their station's website. Their Facebook page had close to 200 "likes" in less than 3 hours and 2,000 likes in the first two weeks. The page was created to help them deal with the deluge of calls to the station from people asking how to help. In order to distribute these items they formed a liaison with the Salvation Army and American Red Cross.

The Salvation Army distributed items through their canteens and the donation's warehouse and also worked with local food pantries to distribute donated food. They devised a system where vouchers were used for survivors to go in one at a time and "shop" for items. Some observations:

- By putting out information asking for donations via both traditional and social media the radio station was able to fill eight tractor-trailer trucks full of donated items in 8 hours.
- People from outside Springfield were able to see the information on their social and traditional platforms and then made donations based on those requests.
- The Facebook page of the radio station was considered the clearinghouse for the information. The radio station made it the on-air personalities' responsibility to checking the Facebook pages and answer questions every day during their shift.
- City of Springfield officials, including the EMD, were aware of the Salvation Army efforts but did not post to the radio station's Facebook page or monitor the site.

WebEOC is designed to give people working on an event a common operating picture and situational awareness; however, volunteer efforts were not well represented on this platform—resulting in a distinctive blind spot. The U.S. Army has developed a platform called: APAN—All Persons Access Network. This platform is an unclassified, non-dot-mil network providing interoperability and connectivity among *all* partners over a common platform. "APAN fosters information exchange and collaboration between the U.S. Department of Defense (DoD) and any external country, organization, agency or individual that does not have ready access to traditional DoD systems and networks" (source: https://community.apan.org/). In other words, it provides a place for volunteers to post and coordinate their efforts. Discussions at the state level should be held regarding potential solutions such as this one. This type of platform should be looked at as a way to help create a more comprehensive common operating picture.

- **Recommendation:** The ESF representative responsible for volunteer and donations management should monitor social networks in order to understand the full scope of what donations are being requested and offered. This person could potentially intercede to stop donations as well. One shelter manager complained of getting too many items: "How do I turn off the donations if I don't know where they are coming from."
- **Recommendation:** A process for sharing information with non-traditional response organizations should be investigated.
- **Recommendation:** The state's situation report conference call needs to include public health and MRC *and* have a written transcript available for those who are unable to be on the call.

Observation 15.6 AREA FOR IMPROVEMENT: Managing the warehouse for donated goods was more complicated than anticipated in most communities' plans.

Source: Interview

Analysis: For those communities that did designate warehouses for donations, these facilities were quickly overwhelmed with items. Managing the warehouse was also a challenge. However, in Springfield, where the Salvation Army was utilized to help organize the effort, a system was put in place and the process was much smoother.

- **Recommendation**: Processes need to be more fully outlined in communities' donations management annex to the CEMP for the acceptance, management and distribution of donated goods and materials, either solicited or unsolicited.

Observation 15.7 AREA FOR IMPROVEMENT: The vast capabilities of volunteer organizations to aid in disaster response and recovery efforts were not well understood before this disaster.

Source: Interview

Analysis: Numerous volunteer organizations, such as the Salvation Army, self-deployed to assist in this event. As one example, the Salvation Army immediately responded to the impacted area and set up canteens to provide sustenance for first responders, which is its first mandate. The assistance was greatly appreciated and they were quickly co-opted into the operation and asked to follow the responders from scene to scene for the

Source: blog.salvationarmyusa.org

first 48 hours. After day 2 they provided hot food to citizens and deployed five mobile canteens. This organization was also called upon to provide meals at the Mass Mutual Center Shelter in Springfield twice. There were several issues that arose since they had not been utilized by first responders in a "while" before this event:

- The Salvation Army has canteens that include radios, but they did not have the ability to communicate with responders on the same frequency in order to coordinate efforts.
- Response leadership did not initially understand the Salvation Army's mission or mandate to provide food and water to first responders.

- **Recommendation:** Exercises and trainings should include all potential response partners, such as the Salvation Army, in order to more fully integrate these resources into the response infrastructure. Exercise scenarios should be designed to better test "the human aspect" versus just the government response technical aspect (such as fire and police coordination). In order to mitigate the expense of large exercises, not all stakeholders need to participate in the same exercise—several could be run throughout the year, and lower costs online formats should be considered.

CAPABILITY 16: Operations and Procedures/Emergency Medical

Standard Summary: The Emergency Management Program should have operational plans and procedures that are developed, coordinated and implemented among all stakeholders.

- The Emergency Management Program shall develop procedures to implement all plans.
- Procedures shall reflect operational priorities including life, safety, health, property protection, environmental protection, restoration of essential utilities, restoration of essential functions and coordination among all levels of government.
- Procedures will be applicable to all hazards identified in the Hazard Identification and Risk Assessment.
- Procedures shall be developed to guide situation and damage assessment, situation reporting and incident action planning.

Observation 16.1 AREA FOR IMPROVEMENT: Central Massachusetts Emergency Medical Dispatch (CMED) during a Mass Casualty Incident (MCI) was heavily tested.

Source: Central Massachusetts Emergency Medical System AAR

Analysis: During the first 4 hours of the Brimfield Tornado Incident, CMED staff managed the MCI channel (MED 2), deployed multiple MCI resources, fielded well over 100 phone calls and handled more than 60 patches of non-MCI traffic. During the initial heavy radio traffic with both operators working simultaneously, the computer matrix "crashed" and had to be rebooted. No patches were lost. Multiple resources were requested through CMED including ambulance task forces, communications assistance, RMCSU trailers, patient scanners, barriers and sign-boards. CMED also experienced several power surges and minor flooding due to the storm.

- **Recommendation:** Training and exercises (such those that can be found in an online format) are needed for Operators to ensure they do the following:
  - Notify CMEMSC staff immediately when a potential MCI is present;
  - Clarify terms used when requesting resources or taking requests;
  - Clarify requests by identifying totals of resources not just "additional;
  - Use proper terminology and full name designations for all assets and resources;
  - Use or obtain the full designation when identifying units on the air**;**

- Understand the Ambulance Task Force concept, assignments and deployment procedures;
- Limit MCI traffic to one operator, others to assist only;
- Report all requests and assignments to the supervisor;
- Have quick access to road maps of the region.

Observation 16.2 AREA FOR IMPROVEMENT: Regional CMED staff needs to understand MCI declaration processes, protocols and procedures.

Source: Central Massachusetts Emergency Medical System AAR

Analysis: Regionally, CMED made the MCI declaration due to requests for an ambulance task force from an ambulance service in the affected area. Within 15-20 minutes of CMED notifying the region's hospitals of the MCI in Brimfield, another service in the area requested a priority 3 "patch" to Harrington. After connecting them, the EMT advised Harrington of the possibility of multiple patients and asked for a bed count. When Harrington asked something about the MCI, the EMT then told them that they weren't declaring an MCI at this point. This radio transmission was very confusing for the hospital and tied up the tower that was crucial for the MCI traffic for nearly 4 minutes.

- **Recommendation:** MCI EMS services need to include in their training MCI protocols and procedures and the functions of CMED during an MCI. These protocols include clearly identifying themselves on the radio and phone; and using proper and consistent terminology.

Observation 16.3 AREA FOR IMPROVEMENT: Regional CMED resource tracking needs improvement**.**

Source: Central Massachusetts Emergency Medical System AAR

Analysis: Many resources were requested without going through CMED, which made keeping track of assets difficult. MEMA was contacted for additional ATF assignments but then they requested that CMED put together a task force of private ambulances each time.

- **Recommendation:** The GIS used to support local/regional response should be capable of accessing open source maps such as OpenStreetMap, which can be locally revised as necessary. The GIS platform controlled at the local level, discussed above (see Observation 3.3), would provide a regional database of all relevant and essential information. One master database for information would minimize the effort to keep it up-to-date. All stakeholders who need for and access to the local GIS resources would then be able to get their data from the master regional data resource. CMED needs to ensure that all maps and contacts are updated and easily accessible. Specifically:
  - Obtain easily accessible road maps;
  - Keep phone contacts for all hospitals bordering the Region (including out of state) in the speed dial bank;
  - Keep maps updated with locations of EMS resources listed on it including EMS services and hospitals (this list should be in electronic as well as hard copy format);
  - Keep an updated listing/map of HSC equipment for regional deployment.

- **Recommendation:** EMS services need to understand regional resources available.
- **Recommendation:** EMS services need to coordinate all EMS responses beyond the mutual aid listed in their service plan through CMED to better allocate resources.

- **Recommendation:** EMS services need to understand the effects their situation and response can have on other services/facilities to avoid relocating the MCI.
- **Recommendation:** EMS services need to ensure prompt, early notification of CMED of the potential of an MCI.

CAPABILITY 17: Facilities

Standard Summary: An Emergency Management program should have facilities required to adequately support response activities.

- The EM program has a primary and alternate facility capable of coordinating and supporting sustained response and recovery operations consistent with the EM program's risk assessment.
- The EM program has established and tested procedures for activation, operation and deactivation of alternate facilities.

According to MEMA's "Duties of the Local EMD":

- The EMD is responsible for acting as the EOC manager and is responsible for ensuring that the EOC is properly staffed.
- The EMD should develop an EOC Staffing Plan. It is important to ensure that all municipal departments and agencies are represented and that accommodations are made for responding state and federal agencies should their presence be necessary. An exercise that includes staffing the EOC should be conducted regularly.

Observation 17.1 AREA FOR IMPROVEMENT: Some towns lacked designated Emergency Operations Centers.

Source: Interviews

Analysis: Most communities do have some form of functional EOCs. For those that have fully operational facilities, such as in Springfield, this asset proved invaluable as a place to support sustained response and recovery operations. However, in some towns community leaders were surprised by all that is involved in setting up an EOC. For example, in one town a room had been designated as the EOC, but the facility had no phones "wired in" and it had windows without shutters.

> "Before the storm our town managers thought EMD stood for Emergency Medical Dispatcher."
>
> —Oxford

- **Recommendation**: Communities need to designate facilities that are required to adequately support response activities.
- **Recommendation**: Community leaders should be persuaded to participate in exercises so that they understand budgetary requirements of building and staffing an EM program.

Observation 17.2 AREA FOR IMPROVEMENT: Designation of Emergency Operations Centers alternative facilities.

Source: Interviews

Analysis: Monson's Police Department took a direct hit from the tornado. They temporarily lost functionality as a bureaucratic institution, including the ability to pay bills and do record keeping. They set up their PD in the parking lot of the fire station in a tent. "If the State would have had some type of back-up in place to drop in a temporary structure, that would have been useful."

- **Recommendation**: When communities' continuity of operations plans fail due to overwhelming circumstances, the state should provide the required resources, when possible, and explain why they can't provide the resource when it is not possible.

Observation 17.3 AREA FOR IMPROVEMENT: Quite a few communities were unable to staff their EOCs with the necessary representation from municipal departments, agencies and volunteer organizations.

In Springfield the term ESF became confusing, so they resorted to identifying the function by its name (e.g., Planning vs. ESF #5). This worked well for them.

Source: Interviews

Analysis: Quite a few small local communities do not have trained, designated staff to work each of the ESF desks in their EOCs. In this event, one community literally had zero staff available to work in the EOC, save for the EMD. He stated: "I have to be honest with you, my EOC fell apart. All of the people I had designated to work were volunteers and could not take time off from their regular jobs." That particular community is looking to assign city personnel to the EOC in future disasters. Some towns operated incident command posts and did not stand up EOCs; although it should be noted that in those cases command personnel did have interactions with municipal departments and agencies with morning and afternoon briefings. However, not having an operational EOC as a centralized location where continuous coordination can occur did prove somewhat problematic for those towns.

It is possible, given the budgetary constraints in the current fiscal climate that each community will be unable to designate, train and exercise a large contingent of personnel to fulfill these roles. Furthermore, most EMDs in smaller communities are part-time personnel themselves. The IMAT concept could be very useful in this case. IMATs (mentioned often in this report) are a cadre of highly trained personnel who could be activated to work in EOCs to perform duties that take practice, such as operating WebEOC, writing Incident Action Plans and even monitoring social and media networks.

- **Recommendation**: The state should fully explore the necessary MOUs, SOPs, trainings, and exercises necessary for developing deployable IMATs to communities impacted in a disaster to assist with staffing EOCs. (See Observation 3.8.)

Observation 17.4 AREA FOR IMPROVEMENT: WebEOC was used sporadically; the tool was seen as unreliable and did not provide a good common operating picture for all stakeholders.

Source: Interview

Analysis: WebEOC was not used at the regional/local level to a large extent—some EMDs stated "nice tool for non-emergencies but can't use during an event." Furthermore, WebEOC is NOT seen as a dependable tool—"if the crisis goes on long enough, then you might use it." Communities also felt that the WebEOC platform did not provide true situational awareness of all activities around the impacted area and that they did not have good awareness of the

state's activities. One EMD stated, "Information went up, but not necessarily down. Information flow from the state to locals was not timely." Other organizations that were supposed to be using WebEOC were not trained on the tool beforehand, nor was there proper access to it from remote locations—such as in the shelters.

- **Recommendation**: Further investigation and analysis of failures in the information support system WebEOC should be undertaken to determine the root reason why WebEOC was used sporadically and if another system could or should be used instead.
- **Recommendation**: SOPs should be developed that allows for information to flow both vertically and horizontally in order for communities to have a broad understanding of the entire response operational picture, with or without WebEOC.

CAPABILITY 18: Emergency Management Program Administration, Plans and Evaluation

Standard Summary: The Emergency Management Program is characterized by visible leadership support, endorsement and engagement demonstrated through the elements of its program. The Program Management chapter of the standard describes what is required in terms of program administration, coordination and stakeholder involvement jurisdiction-wide for an accredited program.

- The jurisdiction has a documented Emergency Management Program that includes an executive policy or vision statement for emergency management, a multi-year strategic plan, developed in coordination with Emergency Management Program stakeholders that defines the mission, goals, objectives, and milestones for the Emergency Management Program and includes a method for implementation.
- The Emergency Management Program has a documented method and schedule for evaluation, maintenance, revision and corrective actions for elements contained in Chapter 3 and Chapter 4 and shall conduct an evaluation of the objectives consistent with the program policies.

Emergency Management Program Coordination

- There shall be a designated emergency management agency, department or office established for the jurisdiction empowered with the authority to administer the Emergency Management Program on behalf of the jurisdiction.
- There is a designated individual empowered with the authority to execute the Emergency Management Program on behalf of the jurisdiction.

Advisory Committee

- There shall be a documented, ongoing process utilizing one or more committees that provides for coordinated input by Emergency Management Program stakeholders in the preparation, implementation, evaluation, and revision of the Emergency Management Program.
- The advisory committee(s) shall meet with a frequency determined by the Emergency Management Program coordinator sufficient to provide for regular input.

MEMA: "Duties of the Local Emergency Management Director," Emergency Situation:

- During emergencies, the chief municipal officer is in overall command of the municipality's resources. The Chief of Police, the Chief of Fire, and other department heads command the operations of their staff's response to the situation at hand. The Incident Commander under the Incident Command System is designated as the person who has the greatest capability to respond to the situation at hand. Designation of the Incident Commander can be promulgated in MA General Law. The Emergency Management Director (EMD) may serve as, or act as a resource to, the Incident Commander.
- The EMD has a responsibility to ensure that proper coordination is taking place between departments and that all logistical needs are addressed.
- The EMD also acts as the EOC manager and is responsible for ensuring that the EOC is properly staffed.
- In certain circumstances the Director is responsible for activating the emergency public notification system. This is accomplished usually from the EOC at the direction of the Incident Commander.
- The Director may also act as chief advisor to the Chief Municipal Officer with respect to the issuance of a Local Declaration of Emergency. A Local Declaration of Emergency should be issued if there is reason to believe that the incident will cause the municipalities' resources to be exhausted and procurement policy and procedure will need to be circumvented.

Observation 18.1 AREA FOR IMPROVEMENT: Emergency Management programs throughout both the Central and Western regions are not adequately resourced.

Source: Interviews

Analysis: This event made clear that the EMD positions are not being resourced adequately in most jurisdictions. Since funding and budgetary constraints are a reality, local communities have assigned the responsibilities of EMD to either volunteer or part-time individuals who receive a small stipend, or to personnel who hold other positions, most often Fire Chiefs. In conducting interviews throughout the impact area, some of these EMDs indicated that before this disaster they were unaware of the entirety of the program responsibilities associated with the position or that they simply did not have enough time in their days to implement the program effectively. These dual-hatted EMDs also indicated that there wasn't adequate guidance available regarding implementation.

MEMA state personnel, however, suggested that training and information is available. Each EMD receives a guidebook detailing requirements, and there are four sessions per year designed to highlight program best practices and exchange information. At this time, MEMA does not include any response partners, such as MRC, Salvation Army, or DART in these meetings. Most local EMDs, though, are usually only able to attend once per year. It is quite evident that at the local level these professional partners in the homeland security and emergency management enterprise would like to learn more, know more, practice more and plan more collaboratively.

Since budgetary limitations appear to be unending, alternative solutions seem to be required, including the possibility of sharing of human resources. One official lamented the county system that used to exist that allowed for this type of resource sharing. "When the county governments went away, there was no way to take up the slack."

There are a number of options that could be considered to address this seemingly intractable problem.

- **Recommendation**: The state should consider fully funding, training and exercising multi-discipline IMATs that can be sent to impacted communities to assist with operating the EOCs and implement the CEMP in a disaster.
- **Recommendation**: Communities might consider regionalization (e.g., four or five towns could come together to fund one professional EMD).
- **Recommendation:** MEMA might consider utilizing online low-cost or free video conferencing tools such as Google "Hangout" as a way to provide an information exchange without requiring traveling; however, this would be done with an understanding that there is a minority of EMDs with limited access to technology.
- **Recommendation:** Consideration should be given to including response partners in quarterly meetings.

Conclusion

This tornado and its aftermath, although tragic, was one of the first times communities in the Central and Western Regions had really fully tested their Community Emergency Management plans. This no-notice, and somewhat unexpected event (in terms of hazards) highlighted the importance of being prepared.

This event also demonstrated that usual exercises that test first responders for the immediate aftermath of a disaster do not go far enough to include all stakeholders that have hugely important roles in the response and recovery effort. Exercises usually test equipment use and fire and law enforcement interactions, but stop short of the "human element." The tornado put on full display the vital roles of a myriad of organizations required to respond effectively:

- agencies and departments including public health, public works, and transportation;
- volunteer organizations—not just the American Red Cross and the United Way, but faith-based organizations such as Lutheran Social Services, the Salvation Army, and the Southern Baptist—to name a very few; and
- the private sector.

Most of these organizations are not regularly included in the trainings and exercises conducted through the EM programs. This event also laid bare the inability to readily exchange information in real time with all of the organizations involved in the response in order to have a common operating picture of the entire effort. Exercises are also usually designed to test things such as "hazardous materials." One AAR conference participant stated: "As we move through certifications everything is geared towards hazmat. What about trees and debris?" In other words, an all hazards emergency plan is only good if all aspects of the plan are exercised.

To reiterate the findings from the executive summary:

What went well?

1. The Massachusetts-Task Force 1 Urban Search and Rescue Team, deployed out of Beverly, Massachusetts, to Springfield and West Springfield, demonstrated what an asset they are to the state with their quick and professional response.
2. Schools were back in session very quickly after the event—most communities only missed 1-2 days at the most. Students were even transported from the shelters to their schools.
3. Power was restored very quickly throughout the impacted region.
4. Debris was removed in a quick and orderly manner, despite some initial frustration regarding documentation procedures. Pre-designated debris collection sites proved beneficial.
5. A multitude of volunteer organizations provided innumerable valuable services, such as providing interpreters to help with non-English speaking survivors, and staffing and administering shelters for a full month.
6. Relief centers formed in some communities that provided a hub for volunteers to gather and for survivors to come for comfort and find donations. Some of these centers fed 2,500 people a day.
7. Community members provided donations to survivors by the truckloads (also a con) and showed up en masse to help their neighbors clean their yards and pick up debris.

8. DARTs and SMARTs were deployed for the first time and proved that their training and equipment purchases were worthwhile.
9. Public education and information went well for some communities, especially those that utilized volunteers and tried creative methods (from social networks and face-to-face communications).

What needs improvement?

1. The ICS Regional Area Command organizational structure and protocols should be considered for use in a multi-regional, multi-municipality incident such as this.
2. Resource management planning and tracking tools are needed in order to facilitate and improve the sharing and distribution of regional assets in a multi-municipality event.
3. A system is needed for credentialing those who need access to the incident scene including both first responders and volunteers.
4. Financial and administrative procedures, required after a Federal Disaster Declaration, need to be trained and better understood by key personnel prior to an event.
5. The process for communicating requirements for security and law enforcement needs between the impacted communities and the state require clarification (e.g., traffic and perimeter control).
6. All hazards emergency management plans, including COOP, should be exercised more often.
7. Redundant modes of mass notification (reverse 911, SMS text, traditional EAS, alarms) in the event of a no-notice event should be established.
8. Staffing shortages for EOCs and JICs should be addressed in planning; alternative solutions such as multi-discipline IMATs should be considered.
9. A process is needed to share information with and between *all* stakeholders in the immediate aftermath of an event.
10. Further investigation and analysis of failures in information support systems like WebEOC should be undertaken to determine failure modes and methods to correct them. The process for achieving a common operating picture and effectively share information both vertically and horizontally throughout the response and recovery operation requires clarification and streamlining.
11. A system is needed to better coordinate the assignment of interim housing solutions to survivors unable to return to their pre-disaster homes.
12. Resource processes are needed that allow for acceptance, management, storage and distribution of donated goods and materials, services, and financial resources, either solicited or unsolicited.
13. In order for community Emergency Management programs to meet minimum functional requirements, sufficient resources are required.

Appendix A: Improvement Plan

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Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
1. Operations and Procedures/ Search and Rescue	1.1"Strength." Urban Search and Rescue Activation and Deployment went smoothly.	1.1.1 Local first responders could have used more information on US&R Team 1 roles and capabilities.	US&R 1 should prepare an information packet explaining its operational capabilities for supported Ics	Operations and Procedures/ Search and Rescue	Mass US&R Team 1	Mark Foster, Program Manager FEMA/DHS MATF1	Immediatel y	
	1.2"*Area for Improvement."* Structural inspection markings were not consistent among search teams.	1.2.1 MA-TF 1 members should review the current marking methodologies. A review should be given as part of pre-mission briefings. A single page legend flier should be generated and distributed to MA-TF 1 members as well as other agencies working in the	MEMA should prepare a field guide detailing all known marking conventions which could be used in the Commonwealth	Operations and Procedures/ Search and Rescue	MA-TF 1	Mark Foster, Program Manager FEMA/DHS MATF1	Immediatel y	
	1.3*"Area for Improvement."* There was a lack of damage-assessment data sharing across disciplines.	1.3.1 Policies and procedures should be developed that guide preparation and distribution of situation reports for all stakeholders. These procedures should explore this concept of data interoperability.	Develop situation reporting SOPs for incorporation into existing plans.	Operations and Procedures/ Search and Rescue	MA-TF 1/MEMA	Mark Foster, Program Manager FEMA/DHS MATF1	Immediatel y	
		1.3.2 A GIS system should be explored that is designed for use at the local level. The system should provide capabilities for damage assessment and sharing of information vertically and horizontally across stakeholder organizations and agencies, including other local agencies with or without GIS software as well as state-agencies with or without WebEOC. (See also 3.3.3)	Explore alternatives (including GIS) for enhancing information-sharing capability.	Operations and Procedures/ Search and Rescue	MEMA	MEMA/MA-TF 1	Immediatel y	

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	1.4 *"Area for Improvement"* Information sharing needs to go both ways. From the US&R 1 AAR: "When squads are deployed to an area where the population is still in residence, the squads should be provided with helpful information to provide to those residents, including where they can access	1.4.1 The Task Force should coordinate with the IC to learn what sheltering provisions are in place for an incident. MA-TF 1 squad members should be briefed on the specifics so that they can communicate with the residents.	The need for 2 way information exchange should be included in USAR TF procedures.	Operations and Procedures/ Search and Rescue	MA-TF 1	Mark Foster, Program Manager FEMA/DHS MATF1	Immediately	
2. Onsite Incident Management	2.1 "Strength." Incident command structure was visible and functioning. However, it should be noted that in one community where the Fire Service did not have the lead, the ICS structure was not visible	2.1.1 Exercises scenarios should be developed and utilized that test the IC system when the Fire Service is not the lead.	Provide combined training in NIMS and ICS for all agencies. Interagency training should be conducted.	Training/Exercises	Department of Fire Services	Roy Jones. Chairman of Fire Mobilization Committee	Immediately	
	2.2 "Area for Improvement" An Area Command was not established for this multi-regional, multi-municipality event and no Unified Command structure existed across jurisdictions. This	2.2.1 SOPs, trainings and exercises should be designed and carried out to test and implement the Area Command and Unified command organizational structure for use in multi-regional, multi-municipality events. *(See also Section 4*)	Provide combined training in NIMS ICS for all agencies. Multi-regional, multi-municipality trainings and exercises should be conducted.	Training/Exercises	MEMA and Department of Fire Services	Roy Jones. Chairman of Fire Mobilization Committee	Ongoing	Ongoing

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	resulted in numerous issues arising, including resources being requested that did not reflect need or priority of the macro incident.	2.2.2 Statewide Fire Mobilization Committee has determined that a two-person situational awareness advance team should be developed which would be responsible for determining the priorities of response assets in multi-regional, multi-municipality events. **See also section on Resource Management and Logistics and Mutual Aid*	Develop SOPs for incorporation into existing plans.	Planning	Department of Fire Services	Roy Jones. Chairman of Fire Mobilization Committee	Immediatel y	
	2.3 "*Area for Improvement*" A Joint Field Office (JFO) was not established in the impacted area.	2.3.1 Response personnel should receive continued training on the Massachusetts FOG, designed to provide guidance on how to effectively operate within the JFO organization.	Personnel required to take the training should be indentified in advance of multi-regional exercises.	Training/Exercise s	MEMA	Patrick Carnevale in consultation with WRHSAC and CRHSC		
		2.3.2 Multi-regional exercise scenarios should be designed to test the implementation of the FOG.	Provide combined training for all agencies.	Training/Exercise s	Regional Training and Exercise Committees			
	2.4 "Area for Improvement." Most ICs in the affected communities did not develop Incident Action Plans for each operational period.	2.4.1 Consideration should be given to augmenting IC and EOC staff with IMATs or EMAC mutual aid resources to help facilitate the writing of IAPs and other associated administrative tasks.	Complete research on how this type of augmentation could be completed.	Planning	MEMA	Patrick Carnevale in consultation with WRHSAC and CRHSC		
	2.5 *"Strength."* No Recommendations or COAs were identified.							

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	2.6"Area for Improvement." All personnel with an emergency response role did not have training on the incident management system leading to confusion about their roles and responsibilities.	2.6.1 All personnel with an emergency response role should receive training on its incident management system; this should include individuals not normally considered First Responders, such as officials in the Departments of Public Works, elected officials, and volunteer organizations.	Provide for basic ICS training for all personnel with an emergency response role	EM Program Administration	EM	Each community's EMDs	Immediately	
		2.6.2 If possible, regularly scheduled periodic meetings and discussions about organizational roles and responsibilities should occur.	Continuous coordination with EM program stakeholders needs to occur.	EM Program Administration	EM	Each community's EMD	Immediately	
	2.7 "*Area for Improvement*" Controlling access to the impacted area, including the influx of sightseers and the traffic problems that ensued, was difficult	2.7.1 Develop SOPs for perimeter control of the impacted area that can be expanded to include assets such as the National Guard.	Develop SOPs for incorporation into existing plans.	Incident Management	EM/Law enforcement			
3. Mutual Aid	3.1"*Area for Improvement*." Emergency Medical Services, Mass Casualty resource deployment caused shortfalls.	3.1.1 The Massachusetts Department of Public Health elected to utilize the Massachusetts Statewide Fire Mobilization Plan for the dispatch of ambulances during significant events. The Fire Mobilization committee recommends that this system should be integrated into local and regional Mass Casualty Incident Plans.	Integrating local plans into MA Fire Mobilization Plan. Review and update resources management plans as required.	Planning	Statewide Fire Mobilization Plan and district control points	Roy Jones. Chairman of Fire Mobilization Committee		

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	3.2*"Area for Improvement."* EMS response via mutual aid was not well coordinated, resulting in duplication of effort.	3.2.1 A plan/method should be developed that allows for the tracking of assigned resources to meet surge requirements, including personnel. Train and exercise the plan. (See Capability 4: for more info on this area as well as Capability 15-Operations and Procedures/Emergency Medical)	Review and update resource management plan.	Planning	Statewide Fire Mobilization Committee	Roy Jones. Chairman of Fire Mobilization Committee and Ed McNamara, Central Mass.EMS Corp		
	3.3*"Area for Improvement."* The development of a common operating picture for the incident took too long to be effective.	3.3.1 Development of 2 person team. See 2.2.1	see 2.2.1	see 2.2.1	see 2.2.1	see 2.2.1		
		3.3.2 Off-the shelf tools should be reviewed that offer redundant and resilient web-based system for tracking fire apparatus and personnel, including GPS-based systems.	Communications plan should be updated to incorporate new tools.	Planning	Statewide Fire Mobilization Committee/ MEMA	Roy Jones. Chairman of Fire Mobilization Committee		
		3.3.3 The use of GIS should be explored, including off-the-shelf GIS tools which do not require a high level of training to use or a GIS expert to operate. Skills in the use of these tools should be fostered	Explore alternatives (including GIS) for enhancing information-sharing capability.	Planning	Statewide Fire Mobilization Committee/ MEMA	Roy Jones. Chairman of Fire Mobilization Committee		
		3.3.4 Review the National Wildfire Coordinating Group GIS Standard Operating Procedures. If determined necessary, new personnel should be hired —such as a GIS specialist (unless the person is available in the State MEMA office) to effectively operate a system for tracking personnel and apparatus in the field.	Staffing plans should be reviewed.	Planning	Statewide Fire Mobilization Committee/ MEMA	Roy Jones. Chairman of Fire Mobilization Committee		

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	3.4 *"Area for Improvement."* Coordination between the Statewide Fire Mobilization ESF #4 Desk at MEMA and ESF #5 should be improved.	3.4.1 Foster integration of ESF #4 with the ESF #5 planning and situation unit by providing additional staff to assist the ESF #4 desk as well as a GIS specialist.	Revise SEOC staffing and operational procedures plan to integrate ESF #4	EOC Management	Statewide Fire Mobilization Committee/ MEMA	Roy Jones. Chairman of Fire Mobilization Committee		
		3.4.2 ESF #4 position should be a standard staffing requirement. The person in this position would be responsible for serving as the Fire Mobilization coordinator during non-emergencies (similar to the MAPC/NERAC coordinator) and would also serve as additional staff for the ESF #4 desk during	Staffing requirements should be reviewed and adjustments made as funding allows	EOC Management	Statewide Fire Mobilization Committee/ MEMA	Roy Jones. Chairman of Fire Mobilization Committee		
	3.5 *"Area for Improvement."* The event demonstrated the importance of training.	3.5.1 The following training areas were identified as priorities by the Fire Mobilization Committee: o Telecommunicator training; o Task-Force Leader training; o EMS program—training for ambulance Task Forces.	Continue comprehensive training program.	Training/Exercises	Fire Mobilization Committee	Roy Jones. Chairman of Fire Mobilization Committee		
	3.6*"Area for Improvement."* An IMAT was activated and held on station without assignment for 24 hours	3.6.1IMAT roles and functions should be clarified regarding how they will be used and integrated into the operation.	Develop and/or revise regional plans.	Planning	IMAT Team Leaders			

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	After release, it was later discovered that those resources were needed but not assigned a mission.	3.6.2 Standard Operating Procedures should be written regarding the circumstances in which IMATs should be deployed to impacted communities (e.g. those that are overwhelmed or those that need help with continuity of operations when key personnel are not available to do the job)	Write SOPs for IMAT deployment to be incorporated into local CEM plans.	Planning	IMAT Team Leaders in conjunction with MEMA, and Regional Councils			
4. Resource Management and Logistics	4.1*"Area for Improvement."* Resource tracking-single point ordering was not done effectively.	4..1.1Create a standardized resource request form that can easily be tracked (needs to be manual & electronic). This would also include state-wide communication protocols and agreements.	Write SOPs on use of standard form, update communications plan.	Resource Management and Logistics	MEMA in conjunction with Regional Councils.			
		4.1.2 Establish a program to ensure resources are tracked and approval/denials of request are available to all involved.	Update resource management plan.	Resource Management and Logistics	MEMA in conjunction with Regional Councils.			
		4.1.3 Endorse and train to the NIMS standards on management of resources (staging, deployment, demobilization, etc.)	Ensure resource tracking systems are tested in Regional exercises.	Training/Exercises	Regional Councils/Fire Mobilization Committee			
		4.1.4 The development of demobilization strategy should be considered that includes the rapid release of unneeded resources that could be shifted to other locations based on priority and requirement.	Updated demobilization strategy needs to be included in resource management plan. Inter-regional exercises should exercise Area Command.	Resource Management and Logistics	Regional Councils/Fire Mobilization Committee			

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	4.2 *"Area for Improvement."* Once a resource is moved from its storage, there is no system in place to track its location nor is there a way for the user to know where it came from in order to return it.	4.2.1At a minimum, communities should place some form of identification on their equipment with storage location and contact information.	Update resource management plan with SOPs.	Resource Management and Logistics	EMDs			
		4.2.2 Regional Councils should investigate low-cost alternatives to expensive electronic RFID (Radio Frequency Identification) tracking systems, such as QR codes. QR codes (or bar codes) can be read by smart phone applications and are an extremely low-cost method for tracking resources (QR codes can be generated for free and printed on any printer). Regional coordination should	Review resource management plan and SOPs.	Resource Management and Logistics	Regional Councils/ MEMA			
		4.2.3 MEMA should investigate whether or not communities could take advantage of the new free database management software from FEMA and whether or not that software will be compatible with MEMA's Resource Management Systems.	Individuals should be identified would be responsible for operating the software at the Regional level.	Planning	Regional Councils/ MEMA			

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5. Mass Care/Animal Management	5.1 "Strength." Deployment of DART to impacted area.	5.1.1 DART and/or SMART activation and deployment should be included in all exercises that involved human shelter operations.	Include the activation of DARTS in all in future exercises that also test Mass Care. Review CEM plans to ensure this component is included.	Shelters/Animal Management	The Hampshire County DART and SMART			
	5.2 *"Area for Improvement."* The pet shelter location was not predetermined, nor was it near the human shelter (in Springfield).	5.2.1 Pre-designation of co-located human and animal shelters, or at least facilities that are on the same campus (either within or nearby) should be done.	Review CEM plans.	Mass Care/Sheltering	EMDs/DART			
		5.2.2 If co-location is not possible, a way to transport people from the shelter to the pet shelter should be planned.		Mass Care/Sheltering	EMDs/DART			
	5.3 *"Area for Improvement."* Shelter operators and facility managers were unaware of the DART capabilities, roles and responsibilities.	5.3.1 Pre-event: Outreach is necessary to pre-designated shelter facility operators in order to educate them about DART's abilities to place animals in their buildings in a way that doesn't damage their facility	Continue outreach to individual community members and other emergency response officials	Mass Care/Sheltering	DART			
		5.3.2 Post-event: When a DART facility is established communication to all impacted community members should occur as well as to shelter managers that this resource is available.	DART information should be included in the communications plan.	Communications	DART/ Local EMDs			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
		5.3.3 Outreach is also needed for people with large animals that cannot be housed at a shelter. The DART should continue in its effort to develop a database of what large animals are in the community. This information should be shared with local EMDs and potentially even incorporated into their GIS systems.	Public Education and outreach should continue. Animal protection and evacuation measures should be considered as one element of these outreach campaigns.	Crisis Communications Public Education and Information	DART/Local EMDs.			
		5.3.4 FEMA uses social media platforms to continuously reach people with preparedness messages to include information about pets. This type of campaign should be considered as a low cost answer to disseminating pet information.	Low cost methods of mass communication should be investigated and communications plans should be reviewed.	Crisis Communications Public Education and Information	DART/Local EMDs.			
		5.3.5 Animal shelter locations should be included in a master GIS database and SOPs for updating and accessing that database need to be written. (See 3.3.3)	Shelter locations should be included on all mapping software.	Resource Management and Logistics	DART/Local EMDs.			
	5.4 "*Area for Improvement*" A system is needed to manage spontaneous DART volunteers and to track all volunteer efforts and time.	5.4.1 Develop just-in-time training for spontaneous volunteers. The training should include an introduction to the Standard Operating Procedures, currently under development.	Volunteer and Donations Management Plans should be updated.	Volunteer and Donations Management	DART			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
		5.4.2 Develop a system for credentialing and tracking staff training and volunteer hours. This system should includes both a way to identify those individuals, such as badges or vests, and a way track training people have completed (e.g. similar to the way the ARC has certificates), and a way to track the hours they have donated during an event	Update volunteer and donations management plan to include DARTs broader volunteer certification and credentialing system.	Volunteer and Donations Management	DART/ Local EMDs			
		5.4.3 It should be determined if the Western Mass. Mutual Aid agreement already covers DART/SMART deployment or could easily be modified to reflect DART/SMART in order to allow the city to claim donated hours.	Review MOUs and MOAs.	Volunteer and Donations Management	DART/ Local EMDs			

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6. Administration and Finance	*6.1"Area for Improvement"* Unfamiliarity with documentation requirements and procedures caused frustration and stress.	6.1.1 Provide training to city officials while the memory of the tornado (and subsequent Hurricane) is still fresh and interest is high.	Provide information and guidance to local officials on documentation requirements for federal reimbursement.	Training/Exercises	Local EMDs			
		6.1.2 Create just-in-time briefings to be delivered when a disaster is imminent or for use after a no-notice event.	Include training on outreach activities in annual training plan	Training/Exercises	EMDs/ Regional Councils			
		6.1.3 Deliver documentation requirement briefings before each hurricane season and each yearly MEMA hurricane exercise.	Prepare standard briefing on documentation.	Training/Exercises	EMDs/ MEMA			
		6.1.4 Outreach should occur with organizations that do not normally participate in these exercises, such as DPW. They should also be included and encouraged to participate.	Provide interagency training/exercises on NIMS and ICS for all agencies.	Training/Exercises	Local EMDs			
		6.1.5 SOPs should be developed for documentation. Forms should be kept in trucks in hard copy but also available for printing from any computer.	Prepare/update disaster financial management plan to include documentation procedures.	Administration and Finance	Regional Councils			
		6.1.6 MEMA should include on its website a “toolkit” for each event—a prominently placed tab that states “Here are the forms you will need for this event.” The Regional Council could also place links to those forms on their website.	Prepare/update resource management plan and post on website	Training/Exercises	MEMA/ Regional Councils			

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		6.1.7 IMATs could be used to assist local communities that are overwhelmed (such as Monson was in this past event.) Teams that are well versed with FEMA paperwork process would then be available to help with processing documentation, including how to report damage and costs in order to get a declaration	The State should prepare a guide on emergency waivers or suspension of any statutory or regulatory requriements, to facilitate this type of mutual aid. CEM plans should be updated to include these teams.	Laws and Authorities	MEMA			
	6.2 Area for Improvement . No clear documentation procedures for volunteers existed in most communities.	6.2.1 SOPs should be developed regarding tracking and reporting volunteer hours.	Create guidance on tracking volunteer management hours	Administration and Finance	Regional Councils/ Local EMDs			
		6.2.2 Technological solutions including web-based interactive platforms, such as “Give Tuscaloosa.com” should be explored as examples of how to provide the community with information about volunteering and tracking	Volunteer and Donations management plan should be revised to include a volunteer tracking system.	Administration and Finance	Regional Councils/ Local EMDs			
	6.3 *Area for Improvement* . Private Ambulance Services mobilization repayment proved difficult.Teams have been deployed without reimbursement.	6.3.1 Community leaders should be briefed on this issue and its potential negative impacts.	Prepare an issue paper fro transmission to community leaders.	Administration and Finance	Regional Councils/ Local EMDs			

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	6.4 "Area for Improvement". Agencies were unsure of who was responsible for re-stocking of shelter equipment.	6.4.1 Education and training regarding how to REPs can seek reimbursement might help eliminate concerns that they will be "stuck with a bill." Further education and outreach regarding the policy is needed. *This issue is also related to resource management	Provide information papers/briefings for community leadership (including EMDs and council members) regarding their responsibilities for restocking.	Public Education	Regional Councils/ Local EMDs			
		6.4.2 MEMA should explore this issue in order to determine the best way to incentivize communities to share	Resource management plan should be revised to include guidance on restocking.	Administration and Finance	MEMA			
	6.5 *"Area for Improvement"* Agencies were unsure of who was responsible for re-stocking for restocking of EMS council trailers.	6.5.1 Further education and outreach regarding the policy is needed to ensure not just awareness, but an understanding of the requirements.	Evaluate training and outreach materials, provide training to the target audience.	Administration and Finance	State Department of Public Health			
	6.6"Stregnth" Grants through the USDA were provided to clean waterways in Wilbraham.		None required					
7. Laws and Authorities	*7.1 and 7.2 were identified as strengths with no corresponding recommendations or corrective actions.*		None required					
	7.3"Area for Improvement" Volunteer Liability was needed for medical professionals working outside of their normal facilities.	7.3.1 Whether or not local elected officials can appoint MRC/CERT volunteers as special municipal employees and other mechanisms to allow liability protections needs to be explored.	Develop mechanisms to allow liability protections for medical providers who want to volunteer outside of their facilities when needed.	Laws and Authorities	MRC			

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	7.4 Area for Improvement. Understanding the roles and authorities of the National Guard.	7.4.1 A "Fact Sheet" describing roles and functions of the National Guard should be developed for the ICs.	Update CEM plans to include section on roles and capabilities of the National Guard.	Laws and Authorities	National Guard			
		7.4.2 The National Guard should be included in exercises at the local level so that their roles, functions and capabilities are better understood. If they cannot participate directly, their role should be simulated.	Include a NG rep on Training and exercises planning team.	Training/Exercises	EMDs/ National Guard			
	7.5 *Area for Improvement.* Code Enforcement was not consistent for damaged buildings.	7.5.1 Clear concise guidelines from the State's Attorney General should be devloped and disseminated.	Develop and dessiminate guidance on applicable Codes and Standards	Laws and Authorities	State Attorney General			
	7.6 Area for Improvement. Laws and Authorities around the use of Incident Management Teams (IMATs) need to be clarified.	7.6.1 Review executive order empowering MEMA to allow the establishment of IMATs. Define the roles, functions and abilities of these teams. Training and exercises on employment of IMATs should be conducted for all response entities to ensure knowledge of the capabilities and responsibilities are well known and understood. Implementation should be included in the long-term strategic plans.	Train partners on the oprational role of IMATs in support of communities.	Laws and Authorities/ Planning	MEMA			

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8. Prevention and Security	*8.1 "Area for Improvement"* Physical Security: State law enforcement mobilization plan was not activated and looting did occur.	8.1.1 The process for communication of law enforcement needs between the impacted community and the state should be clearer. These types of requests should be exercised.	The activation plan should be trained and exercised for multi-regional events.	Prevention and Security	Mass State Police Mobilization Committee			
		8.1.2 The circumstances required for the State law enforcement activation plan to be put in place should be communicated to the regions and local officials.	All stakeholders should receive awareness training on Procedures.	Prevention and Security	Mass State Police Mobilization Committee			
		8.1.3 All available resources for security and law enforcement should be considered. Procedures should address thresholds or "triggers" for the mobilization of specific	Include triggers and thresholds for mobilization in plans.	Planning	Mass State Police Mobilization Committee			
	8.2 "Area for Improvement" It was difficult to determine who had the right to be in the impacted area because no formal credentialing system was in place across the impacted area.	8.2.1 The state credentialing system (including a state-wide law enforcement identification system) should continue to be expanded, currently only a small number of police have gone through the system. Local governments should consider paying the annual fee associated with the process. (There is recognition that this is expensive.)	Develop a consistent credentialing protocol for granting access to the incident scene.	Prevention and Security	National Guard, ARC, local law enforcement			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
		8.2.2 A centralized location, should be established to process all volunteers—especially those unaffiliated with parent organizations. EMDs should consult with ARC to consider what trainings are required before an event. Liability release forms should be	Update local volunteer and donations management plans. (See also Capability on *Volunteer and Donations Management*)	Prevention and Security/Volunteer and Donations Mgmt	Local EMDs			
		8.2.3 An outreach program should also occur to volunteer organizations to let them know how their members can become credentialed.	Include outreach campaign in Volunteer and Donations Management plan implementation strategy. (See also Capability on Volunteer and Donations Management)	Prevention and Security/Volunteer and Donations Mgmt	Local EMDs			
9. Hazard Identification/ Risk Assessment/ Consequence Analysis	9.1 "*Area for Improvement* ." The identification of tornados as a hazard and communication of that hazard to elected officials was not done well before this event.	9.1.1 Communities that have not already done so should conduct Hazard Identification Risk Assessments (HIRA).	Hazard assessments and plans should be reviewed and updated as needed.	Hazard Identification/Risk Assessment/Consequence Analysis	Local EMDs			
		9.1.2 The public has a heightened awareness of this potential threat; therefore, a public preparedness campaign should be conducted that informs community members on how they can better protect themselves against this particular hazard.	Public Education and outreach should continue.	Public Education and Warning	Local EMDs			

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10. Emergency Public Information and Warning	10.1 *"Area for Improvement"*. There was no universal alert capability in the impacted area. People who were not near a radio or television were not aware of the tornado threats.	10.1.1 "Alert" measures should be standardized so that they are known to all.	Notification plans and systems should be reviewed.	Emergency Public Information and Warning	MEMA/ Regional Councils			
		10.1.2 Utilize redundant systems to notify people on multiple platforms.	Identify appropriate systems for public notification, include in CEM plans.	Emergency Public Information and Warning	Local EMDs			
		10.1.3 Ensure alerts also include protective action information.	Develop SOPs and prescripted messaging.	Emergency Public Information and Warning	Local EMDs			
		10.1.4 Tornado drills and citizen protection information should be introduced to schools and other public venues.	Public Education and outreach should continue.	Emergency Public Information and Warning	Local EMDs			
	10.2 *"Area for Improvement* ." For most communities there is no clear plan for reaching the functional and access needs population, including the deaf community, with alert information.	10.2.1 When planning for alert and notification systems, full consideration needs to be given for the non-traditional population, including the deaf community as well as non-English speakers. A public meeting with these individuals to determine what system is best for them should be considered, especially when it comes to those items detailed in EGC regulations.	Communities should perform a detailed needs assessment to determine the specific population with functional and access needs in an emergency. These indivuals should be provided the opportunity for notification options.	Emergency Public Information and Warning	Local EMDs			
		10.2.2 An outreach campaign should occur to try to determine who in the community has functional or access needs. Community members that can assist with interpretation should also be identified.	Public Education and outreach should continue.	Emergency Management Program Administration, Plans and Evaluation	Local EMDs			

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		10.2.3 Where possible, the housing locations of community members with functional and access needs should be included as a layer of data on any GIS or other mapping tools. The locations should be updated on an	Targeted data collection should be performed to facilitate planning for functional needs.	Emergency Management Program Administration, Plans and Evaluation	Local EMDs			
		10.2.4 Consideration should be given to low cost alternative such as SMS text and social media platforms for communications with the deaf community.	Research best practices for these methods, trainings and exercises.	Training/Exercises	Local EMDs			
11. Crisis Communications Public Education and Information	11.1*"Area for Improvement* ." Distributing information to the public was a challenge.	11.1.1 Where possible, individuals should be identified who will act as the public information officer during a crisis. These individuals should be trained and participate in exercises	Identify PIOS to participate in future exercises and trainings.	Crisis Communications Public Education and Information	Local EMDs			
		11.1.2 Communities should put in place procedures to support the implementation of a JIS and JIC. Formation of a JIC should be an objective in future exercises	Develop protocols for implementation of JIC and JIS. Provide training to all identified PIOs.	Crisis Communications Public Education and Information	Regional Councils/ Local EMDs			
		11.1.3 PIOs should explore the use of social networking sites for the quick distribution of information to a broad audience.	Review and revise ommunications plans as necessary.	Crisis Communications Public Education and Information	Local EMDs			
	11.2 *Strength* Emergency vehicles were deployed in Springfield to demonstrate a presence of authority and to provide outreach to the public immediately after	*Strength with no corresponding recommendations or COAs* .	None required					

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	11.3 *"Area for Improvement* ." Getting information to the public about what debris could and could not be picked up was challenging.	11.3.1 Disaster debris management plans should address communicating with residents on debris management issues and the coordination of those public notices.	Include debris removal in public communications plans.	Crisis Communications Public Education and Information/ Planning	Local EMDs/ Local DPWs			
		11.3.2 Alternate means of communication should be explored including the use video sharing sites such as YouTube and Vimeo to distribute "how-to" videos.	See 11.1.3	Crisis Communications Public Education and Information	Local EMDs			
	11.4 *"Area for Improvement* ." Citizens needed information about who were legitimate building contractors.	11.4.1 Information regarding ways to avoid being scammed should be pre-scripted for ready distribution.	See 11.1.3	Crisis Communications Public Education and Information	Local EMDs			
		11.4.2 A way to share pre-scripted messages and information bulletins for ready distribution should be explored by MEMA (potentially at the regional offices).	MEMA should provide information concerning options for information sharing mechanisms (such as the MEMA website).	Crisis Communications Public Education and Information	MEMA			
		11.4.3 Pre-event coordination and planning for this information dissemination should occur with community partners including the Better Business Bureau.	Conduct outreach with community partners .	Crisis Communications Public Education and Information	Local EMDs			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
12. Operational Planning	12.1 *"Area for Improvement* ." Some communities did not have debris Management Annexes in their Emergency Management Plans that were adequate for this disaster and were unfamiliar with guidance available from Massachusetts Department of Environmental	12.1.1 Local emergency plans should include a Debris Management Annex that includes SOPs clarifying roles and functions.	Debris management annexes should be addes to local CEM plans.	Operational Planning	Local DPWs/Local EMDs			
		12.1.2 The management of disaster debris needs to be incorporated into exercises with participation from local DPWs and State DEP.	Training and exercises should include all potential responding organizations.	Training/Exercises	Local EMDs			
	12.2 *Strength* . Most communities had pre-designated debris disposal sites.	No corresponding recommendations or COAs.	None required					
13. Communications	13.1 *"Area for Improvement* ." The amount of call traffic immediately overwhelmed the networks.	13.1.1 A public education campaign "Text, Don't Call" should be implemented at all levels of government—similar to the campaign conducted by FEMA. This campaign encourages members of the public to send text messages to friends and family after a crisis. Text messages only take up a fraction of the bandwidth of a call, freeing up lines and	The State should design public outreach campaign that could be utilized in messages at the local level.	Public Education and Warning	MEMA			
	13.2 "*Area for Improvement."* The communications infrastructure in some communities is aging and can withstand only very limited stress.	13.2.1 Plans should include redundant means of communications in the likely case of failure in primary systems). The use HAM radio operators should be further explored as a low-cost redundant system.	Exercises with the objective of testing full system failures should be conducted.	Communications/ Planning	Local EMDs			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	13.3 *"Area for Improvement* ." Fire Service intra-discipline interoperability was seen as a success, however inter-discipline interoperability was problematic.	13.3.1 Complete an analysis of what communications each community currently uses and begin to consider moving to a regional system that allows the towns to consolidate systems. On a local basis, determine what resources need updating to allow for better interoperability with outside	Communication plans should be reviewed.	Communications	Regional Councils/ Fire Mobilization Committee			
		13.3.2 Working regionally, a communications plan should be developed that allows for the expansion outside the community to include regional, state and federal resources. The COMML statewide interoperability coordinator at MEMA was a useful resource in the past. The position is currently vacant, but should be filled in order to facilitate this	Communications plan scope should be expanded to a broader area.	Communications/ Planning	MEMA			
		13.3.3 Fully deploy Harris Unity radios and incorporate into inter-discipline testing, training and exercises in order to make sure personnel know how to use them to their fullest capacity.	Test new systems and technology with training and exercises.	Communications/ Training and Exercises	Regional Councils/ Local Fire and Law Enforcement			
	13.4 "*Area for Improvement* ." Fire Service intra-discipline interoperability was seen as a success, however inter-discipline interoperability was problematic.	13.4.1 The City of Springfield needs to work with State to outfit the current 911 backup center to be able to meet needs of Springfield's 911 calls.	Explore options and priorities for resourcing current 911 center.	Communications	MEMA/ Springfield EMD			
		13.4.2 The State should consider procuring additional deployable capability.	Explore resource requirements: purchase equipment as funds become available.	Communications	MEMA/ Springfield EMD			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	13.5 "*Area for Improvement*." Communications and Resource Management for 911/local PSAP requires redundancy.	13.5.1 A plan should be developed that includes how EMDs and the response community can communicate with all EM program stakeholders.	Improve communication strategy to stakeholders.	Communications	Local EMDs			
	13.6 "*Area for Improvement*." Sharing information among all response actors and stakeholders was difficult.	13.6.1 Power company activities should be made available on situational awareness sharing platforms and representatives should continue to be included on twice daily State or regional conference calls.	Include private sector in operational planning.	Communications	Utility providers, community EOCs			
	13.7 "Strength" A private sector communications company quickly provided necessary equipment to a local community."	*This area was identified as a strength and there are no corresponding recommendations or COAs.*						
14. Mass Care/Sheltering	14.1 *"Area for Improvement*." Coordinating Shelter Volunteers proved problematic for some communities. Numerous shelters were open in the area and it was difficult to obtain information regarding their overall status and what human resources were needed at each shelter at the multi-jurisdictional level. It was also difficult to determine shelter and staffing needs for each shelter individually.	14.1.1 An effective collaborative model for decision-making in the shelters should be designed and implemented. This model should be expandable to ensure the incorporation of all volunteer agencies. This structure should be determined before an event, trained and	Training and exercises should include all potential responding organizations.	Mass Care/Sheltering	MRC, ARC/ DHS			
		14.1.2 Monthly conference calls between ARC and MRC should occur to build relationships.	Agreements between the various organizations should be facilitated, if necessary.	Training/Exercises	MRC, ARC			
		14.1.3 A regionally based system for volunteers to sign-up for shifts should be	Establish volunteer sign up system.	Planning	Local EMDs/DPW			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
		14.1.4 Establish a sign-in, sign-out system for all volunteer workers in the shelter in order to ensure it is always known who is on site needs to be established. Consider Shift change procedures should be considered, which include the introduction of all team members and a description of their roles and responsibilities	Establish a sign-in, sign-out system	Mass Care/Sheltering/ Planning	MRC/ARC			
		14.1.5 Shelter volunteers should train together and have an understanding of the other organizations policies, protocols and procedures, such as activation/deactivation.	Exercise objectives should include testing the interactions and coordination among all response partners.	Training/Exercises	MRC/ARC			
		14.1.6 Explore staffing options of ESF#6 desk at MEMA HQ in order to ensure all shelter volunteer information is represented should be explored.	Update staffing plans as required.	Planning	MEMA			
		14.1.7 Continue shelter training, in order to increase the number of individuals available to staff shelters for multi-regional events, should be continued and expanded	Training and exercises should include all assets.	Training/Exercises	DPH			
		14.1.8 Establish a system for identifying credentialed volunteers for each shelter: either with badges or clothing such as vests should be established	Establish a credentialing system.	Planning	DPH			
		14.1.9 Shelter operations, including volunteer staffing, should be included in exercises.	Training and exercises should include all potential responding organizations.	Training/Exercises	Local EMDs/MRC /ARC			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	14.2 *"Area For Improvement* ." There was a need for more coordination of economic services for survivors in the shelters.	14.2.1 Public Health agencies should incorporate more volunteer organizations (such as faith-based organizations) into trainings and exercises in order to increase familiarity, coordination and cooperation with the personnel and the services they offer	Training and exercise opportunities need to be widely shared.	Mass Care/Sheltering	DPH			
		14.2.2 A universal form for shelter occupants such as "Access to all Social and Donated Services" should be explored.	Procure as funding becomes available.	Mass Care/Sheltering	MEMA/ Regional Councils			
	14.3 "*Area for Improvement* ." Coordination of Organizations Identifying housing for displaced individuals did not occur.	14.3.1 Communities should identify a strong ESF #6 coordinator that is able to provide the necessary coordination among non-traditional and newly formed voluntary agencies, existing social service agencies, and other government agencies with formal coalitions such as VOAD and Long-Term	Review EOC staffing plans.	Mass Care/Sheltering	Local EMDs			
		14.3.2 Communities should explore utilizing social networking to connect individuals who need housing after a crisis.	Policies, procedures and liability should reviewed as part of this analysis.	Mass Care/Sheltering				
	14.4 "Area for Improvement. Hospital patients were released to shelters that weren't equipped to readily deal with wounded and ill	14.4.1 A discussion between all stakeholders should occur regarding what level of care is expected in the shelters for individuals that are ill.	Review/revise Shelter policies .	Mass Care/Sheltering	MRC			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	individuals.	14.4.2 Emergency Preparedness training provided a solid foundation for volunteers. These trainings should continue.	Share Training and exercise opportunities with volunteer organizations.	Mass Care/Sheltering	Local EMDs/ Local DPH			
	14.5 "Strength." Translators for non-English speakers were found in the community via both non-profit faith based organizations and via community health.	Area was identified as a strength with no corresponding recommendations or COAs.	None required					
	14.6 *"Area for Improvement* ." Although shelter locations were pre-identified, some shelters were not ready to accept occupants for this no-notice event.	14.6.1 Designated shelters should be periodically checked for appropriate supplies, including vital items such as operating generators.	Perform preiodic assessments of shelters.	Mass Care/Sheltering	Local EMDs/DPH			
		14.6.2 Communities should continue to review shelter locations annually and ensure school boards and facility managers are aware of the full implication of their commitment.	Ensure CEM plans are updated.	Mass Care/Sheltering	Local EMDs/DPH			
	14.7 *"Area for Improvement* ." There were numerous shelter occupants that had very severe religious dietary restrictions. How to feed that population became a point of contention.	14.7.1 A discussion at the local level should occur with all stakeholders regarding what flexibility, if any, should be allowed regarding feeding populations with dietary restrictions.	Plan for accommodating shelter occupants with special or religious dietary needs.	Mass Care/Sheltering	DPH			
		14.7.2 The American Red Cross at the national level will be releasing guidance on this issue early next year, and it should be reviewed.	Review ARC guidance and adopty as appropriate.	Mass Care/Sheltering	ARC/ Public Health			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	14.8 *"Area for Improvement* ." There was a distinct need for mental health services in the shelters.	14.8.1 Mental health specialist in the community will often volunteer their time to assist after a disaster, especially if this type of need is well understood. MRCs should continue to explore how to solicit this type of volunteer pre-crisis in order to provide those individuals with the proper credentialing and any	Explore options for obtaining mental health specialist serves, especially for children.	Mass Care/Sheltering	MRC			
	14.9*"Area for Improvement* ." The cots that were made available were not made of good quality materials and were "falling apart" after one use. Cots designated for people with access and functional needs were not suitable.	14.9.1 Before replacement cots are purchased, the Region should determine which cots are recommended by Public Health officials both for general population and for people with functional and access needs.	Replace inferior cots as required.	Mass Care/Sheltering	Local EMDs/ Local DPH			
		14.9.2 A location should be identified where cots can be properly stored.	Determine a suitable location for storing cots	Mass Care/Sheltering	Local EMDs/ Local DPH			
15. Volunteer and Donations Management	15.1 "*Area for Improvement* ." The East Hampton CERT was deployed prematurely before a clear mission for them was established.	15.1.1 SOPs should be developed that outline when CERTs should be deployed, such as after there is a clear mission and a common operating picture.	Review/revise SOPs	Volunteer and Donations Management	CERT			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	15.2 *Strength* . CERT was very successful when given a clear mission.	15.2.1 CERT can be very effective when they have a clear mission, they take their jobs seriously, and are willing to help in anyway they can (some of this CERT team even took the day off of work.) Communities that do not use CERT should explore developing this asset further.	Review CEM plans.	Volunteer and Donations Management	CERT/Local EMDs			
	15.3 *Strength* . Communities that established centralized relief centers found these facilities to be very welcomed by survivors and some became central hubs for donations and spontaneous volunteer management.	15.3.1 A volunteer and donations management annex should be written into each CEM community's emergency management plan that includes processes for organizing spontaneous volunteers.	Review and revise Volunteer and Donations Management plans.	Volunteer and Donations Management	Local EMDs			
		15.3.2 Communities should explore the use of social media platforms for volunteer coordination—especially spontaneous volunteers and donations (region-wide) before a crisis. See examples such as www.rebuildjoplin.org.	Explore all communication platforms. State and/or regional guidance should be made available to locals.	Volunteer and Donations Management	MEMA/Regional Councils			
	15.4 *"Area for Improvement* ." All Hands Volunteers" organization was ask to coordinate spontaneous volunteers after communities had already developed a structure to accomplish this task.	15.4.1 ESF #18 Volunteer and Donations management should be staffed at the local level EOCs. All of the activities being accomplished by volunteers (including spontaneous volunteers) should be communicated to both the local EMDs and to the State.	Review EOC staffing plans .	Volunteer and Donations Management	MEMA			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
		15.4.2 State's situation reports should reflect all volunteer activities, including activities of non-affiliated and spontaneous volunteers.	Review plans/procedures for how volunteer activities are reported.	Volunteer and Donations Management	MEMA			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	15.5 *"Area for Improvement* ." There was a lack of understanding of the innumerable volunteer activities that were being coordinating with the aid of social networking sites.	15.5.1 The ESF representative responsible for volunteers and donations management should monitor social networks in order to understand the full scope of what donations are being requested and offered. This person could potentially intercede to stop donations as well.	Explore all communication platforms. Make State and/or regional guidance available to locals.	Volunteer and Donations Management	MEMA, Local EMDs. VOADs			
		15.5.2 A process for sharing information with non-traditional response organizations should be investigated.	Procure new tools as funding becomes available.	Volunteer and Donations Management	Regional Councils/ MEMA			
	15.6 "Area for Improvement." Managing the warehouse for donated goods was more complicated than anticipated in most communities' plans.	15.6.1 Processes need to be more fully outlined in communities' donations management annex to the CEM plan for the acceptance, management and distribution of donated goods and materials, either solicited or	Review Volunteer and Donations Management plan.s	Volunteer and Donations Management	ARC, community emergency management			
	15.7 "Area for Improvement." The vast capabilities of the volunteer organizations ability to aid in disaster response and recovery efforts were not well understood before this disaster.	15.7.1 Exercises and trainings should include all potential response partners, such as the Salvation Army, in order to more fully integrate these resources into the response infrastructure. Exercise scenarios should be designed to better test "the human aspect" versus just the government response technical aspect	Conduct exercises with the objective of testing interactions and coordination with all response partners.	Volunteer and Donations Management	Salvation army, local EM			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
16. Operations and Procedures/ Emergency Medical	16.1 *"Area for Improvement* ." Central Massachusetts Emergency Medical Dispatching during a Mass Casualty Incident was heavily tested.	16.1.1 Training is needed for Operators to ensure they do the following: ensure prompt notification of CMEMSC staff immediately when a potential MCI present; clarify terms used when requesting resources or taking requests; clarify requests by identifying totals of resources not just "additional; Use proper terminology and full name designations for all assets and resources; use or obtain full designation when identifying units on the air; understand Ambulance Task Force concept, assignments and deployment procedures; limit MCI traffic to one operator, others to assist only; report all requests and assignments to the supervisor;	Training and exercises be include objectives to test procedures.	Operations and Procedures/Emergency Medical	Central Massachusetts Emergency Medical Dispatch (CMED)			
	16.2 *"Area for Improvement* . "Regional CMED staff needs to understand MCI declaration processes, protocols and procedures.	16.2.1 MCI EMS services need to include in their training MCI protocols and procedures and the functions of CMED during an MCI. These protocols include clearly identifying themselves on the radio and phone; and using proper and consistent terminology	Integrate MCI training into EMS preparedness plan.	Operations and Procedures/Emergency Medical	CMED			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	16.3 *"Area for Improvement* ." Regional CMED resource tracking needs improvement.	16.3.1 CMED needs to ensure all maps and contacts are updated and easily accessible. Specifically: Obtain easily accessible road maps; Keep phone contacts for all hospitals bordering the Region in the speed dial bank; Keep maps updated with locations of EMS resources listed on it including EMS services and hospitals; Keep updated listing/map of HSC equipment for regional deployment.	EMS and CMED need to coordinate their efforts on both information and resource deployment.	Operations and Procedures/Emergency Medical	CMED, EMS			
		16.3.2 EMS services need to understand Regional resources available.	(See also Section 3.2/ Mutual Aid)	Planning	CMED, EMS			
		16.3.3 EMS services need to coordinate all EMS responses beyond the mutual aid listed in their service plan through CMED as to better allocate resources.	(See also Section 3.3/Mutual Aid)	Training/Exercises	CMED, EMS			
		16.3.4 EMS services need to understand the affects their situation and response can have on other services/facilities to avoid relocating the MCI.	(See also Section 3.3/ Mutual Aid)	Training/Exercises	CMED, EMS			
		16.3.5 EMS services ensure prompt, early notification of CMED of the potential of an MCI.	(See also Section 3.2/ Mutual Aid)	Training/Exercises	CMED, EMS			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
17. Facilities	17.1 "*Area for Improvement*." Some towns lacked designated Emergency Operations Centers.	17.1.1 Communities need to designate facilities that are required to adequately support response activities.	Identify required resources and facilities and procure them.	Facilities	Local EMDs			
		17.1.2 Community leaders should be persuaded to participate in exercises so that they understand budgetary requirements of building and staffing an EM program.	Outreach to community partners is required.	Training/Exercises	Local EMDs			
	17.2 *"Area for Improvement"*. Designation of Emergency Operations Centers alternative facilities.	17.2.1 When communities' continuity of operations plans fail due to overwhelming circumstances, the State should provide the required resources, when possible, and explain what they can't provide the resource when it is not	Training and exercises should include objectives to test procedures.	Facilities	MEMA			
	17.3 "Area for Improvement." Quite a few communities were unable to staff their EOCs with the necessary representation from municipal departments, agencies and volunteer	17.3.1 The State should fully explore the necessary MOUs, SOPs, trainings, and exercises necessary for developing deployable IMATs to communities impacted in a disaster to assist with staffing EOCs.	Training and exercises should test procedures.	Facilities	IMATs, EMDs			
	17.4 "Area for Improvement." WebEOC was used sporadically, the tool was seen as unreliable and did not provide a good common	17.4.1 Further investigation and analysis of failures in the information support systems WebEOC should be undertaken to determine failure modes and methods to correct	Identify any required resources.	Facilities	MEMA/ Regional Councils			

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
	operating picture for all stakeholders.	17.4.2 SOPs should be developed that allows for information to flow both vertically and horizontally in order for communities to have a broad understanding of the entire response operational picture, with or without WebEOC.	Review/revise Communications Plans	Facilities	MEMA/ Regional Councils			
18. Emergency Management Program Administration, Plans and Evaluation	18.1 *"Area for Improvement."* Emergency Management programs throughout both the Central and Western regions are not adequately resourced.	18.1.1 The State should consider funding, training and exercising multi-discipline IMATs that can be sent to incapacitated communities to support requests to assist with conducting essential community functions in a	Consider development of capability to support incapacitated communities.	Planning/Training and Exercises	MEMA			
		18.1.2 Communities might consider pooling resources to fund one fulltime professional EMD.	Conduct workshops to discuss this issue with communities.	Planning	Local EMDs			
		18.1.3 MEMA might consider utilizing online low-cost or free video conferencing tools as a way to provide an information exchange to reduce travel costs	Training methods should be reviewed.	Training/Exercises	MEMA			

Appendix B: List of Interviewees

Name	Title	Town / Organization
Dennis Annear	Chief	IMAT
Sheri Bemis	EMD/Fire Chief	Oxford
Gary Boussier	Chief	Wilbraham Fire
Brenda Brouillette	Deputy Director	American Red Cross
Susan Brown	Program Manager	WRHSAC Homeland Security
Patrick Carnevale	Director Region 3 & 4	MEMA
Ann Carroll		Springfield: Mercy Medical Center
Helen Caulton	Director	Springfield Public Health
Richard Ciesla	EMD/Fire Chief	EMD/Fire Chief: Southbridge
Joe Conant	Chief	Springfield FD
Joe Cuneo	Team Member	IMAT
Brian Duggan	Chief, Western Ma Coordinator	Fire Mobilization
Michael Dunne	Homeland Security Liaison	Central Massachusetts Regional Planning Commission
Jeanne Galloway	Director	West Springfield Public Health
Terri Gough	Admin	City of Charlton
Thomas Grady	Major	Berkshire Sheriff's Office
Robert Hassett	EMD	Springfield EMD
Larry Holmberg	HEART	DART
Karen Christiansen King	Founder/Lead Organizer	Monson Street Angels
Steph Jo Kent	ASL/English Interpreter	MA Registry of Interpreters for the Deaf
Stephen Kozloski	Chief	Monson Police
Larry Lajoie	Chief	Hampden Sheriff's Dept
Gina Lynch	Director	Disaster Relief Center, Brimfield
Edward McNamara	Chairman	Homeland Security Council
Ed Mello	Westfield, DART MRC	DART
Ed Miga	DPW Director	Wilbraham DPW
Richard Morris	EMD	Brimfield
Jim Mulvenna	Public Works Director	Westfield DPW
Mohammed Najeeb	Director	West-Springfield: Lutheran Social Services
Gretchen E. Neggers	Town Admin	Monson CEO or representative
Kathleen Conley Norbut	MRC	Hampden
Francis Nothe	EMD	Wilbraham
Ed O'Brien	State Coordinator	Fire Mobilization
Diane Panaccione	Chair, BOS	Brimfield CEO or representative
Fred Piechota	Acting Fire Chief	Brimfield Fire
Mary Regan	Chief	Westfield Fire
George Robichaud	Chief	Monson Fire
Don Sanderson	Captain	Salvation Army
Donna Alexander	Easthampton	CERT
Donald Snyder	Director	Mass DPH
Kent Vincent	Fire Chief	Douglas
Jim Wiggs	EMD	Westfield

Appendix C: List of AAR Conference Attendees

First Name:	Last Name:	City:	Title:	Organization:
Dennis	Annear	Orange	Fire Chief/Emergency Manager	Orange Fire-Rescue EMS
Gail	Bienvenue	Mass. Department of Public Health	Regional Hospital Coordinator	Public Health
Stephanie	Bozigian-Merrick			
Brenda	Brouillett	Springfield	ARC Regional Coordinator	ARC
Susan	Brown	Greenfield	Homeland Security Program Manager	FRCOG/WRHSAC
Ann	Carroll	Springfield	Emergency Preparedness Coordinator	Mercy Medical Center
Dick	Ciesla	Southbridge	Fire Chief	Southbridge Fire
David	Clemons	Worcester	Director of Emergency Communications	Worcester Emergency Communications
Joe	Conant	Springfield	SPFLD Fire Dept	
Kathleen	Conley Norbut	Monson	Coordinator, Western Massachusetts	Medical Reserve Corps
Pat	Carnevale	Agawam	Regional Director	MEMA
Michael	Coughlin	Public Health	Dir of Public Health	Public Health
Roberta	Crawford	Boston	Exercise and Training Manager	MA Department of Public Health
Jim	Donovan	Brimfield	Lieutenant	Brimfield Fire
Carl	Ekman	Charlton	EMD	Charlton Emergency Management
Kevin	Elliott	Holyoke	Unit Coordinator	City of Holyoke BOH
Brian	Falk	Longmeadow	Deputy EM	Emergency Management
Emil	Farjo	West Springfield	Volunteer Organization	Lutheran Social Services
Thomas	Ford	Sturbridge	EMD	Central Region
Jennifer	Frenette	Lancaster	MRC Regional Coordinator	HHS/OASH/DVCMRC

First Name:	Last Name:	City:	Title:	Organization:
Jeanne	Galloway	West Springfield	Director of Public Health	Town of West Springfield
Thomas	Grady	Pittsfield	Major	Berkshire County Sheriff's Office
Victoria	Grafflin	EOPSS		
Bob	Hassett	Springfield	Spfld EM	EMD
Beverly	Hirschhorn	Longmeadow	Health Dir.	Longmeadow Board of Health
Gretchen	Johnson	Greenfield	Homeland Security Program Assistant	FRCOG
Stephanie Jo	Kent	Springfield	Interpreter & Communication Researcher	Emergency Management Working Group, Registry of Interpreters for the Deaf (RID)
Steve	Kozloski	Monson	Police Chief	Monson PD
Marcel	Lapierre			
Thomas	Lynch	Springfield	Director of Security	Baystate Health
Sandra	Martin	BCBOHA	Public Health Emergency Planner	Berkshire County Board of Health
Christina	Maxwell	Hatfield	Director of Programs	Food Bank Western Mass
Linda	Moriarty	Northampton	Executive Director	WMEMS
Melissa	Nazzaro	Springfield	Dispatch Director	Springfield Emergency Communications
Dennis	Nazzaro	DFS/NFD		
Michael	Nelson	Montague	County Coordinator	Hampshire County Medical Reserve Corps
Tom	O'Regan	Srpingfield		UMass Amherst
Vivian	Orlowski	Pittsfield	Project Director, Faith Community Partnering for Emergency Preparedness	Berkshire County Boards of Health Association
Esther	Perrelli Brookes	New Hartford		Springfield MRC
George	Robichaud	Monson	Fire Chief	Monson FD
Tracy	Rogers	Greenfield	Regional Preparedness Program Manager	Franklin Regional Council of Governments

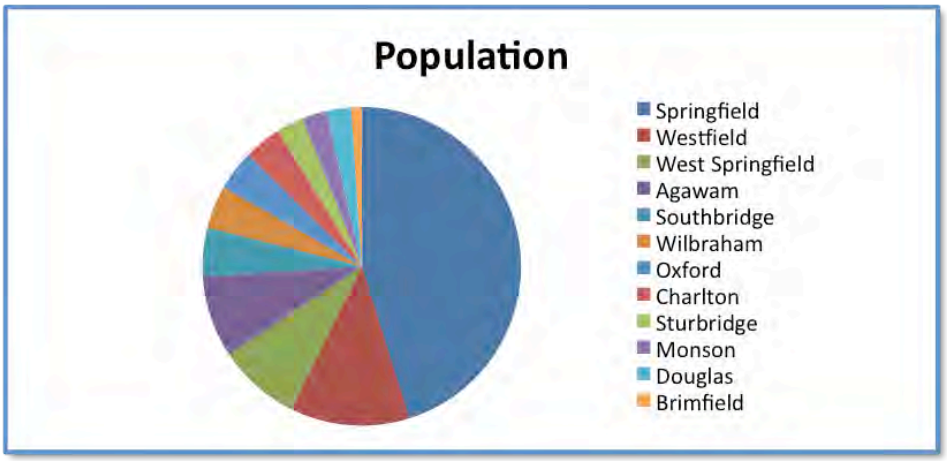
First Name:	Last Name:	City:	Title:	Organization:
Catherine	Skiba	Haydenville	Service Center Manager	MassDEP
David	Slowick	Springfield	Section Chief, Emergency Response	MassDEP
David	Slowick	Framingham	MA Department of Environmental Protection	MADEP
Dennis	Solve		EP Planner/Vol	
Steve	Staffier	Agawam	COMC	MEMA
Don	Synder	Mass. Department of Public Health	Reg. Prep. Coordinator, Region I	MDPH
Lindsay	Tallon	Boston	Health Volunteer Program Manager	MA Dept. of Public Health
Lindsay	Tallon	Public Health	Ma Dept of Public Health	Public Health
John	Taylor	Shelburne	Team Leader - Special Operations West Team	MA Dept of Fire Services
Eva	Tor	Springfield	Deputy Regional Director	Mass Dept of Environmental Protection
Margaret	White	MA National Guard	Director of Military Support	MA National Guard

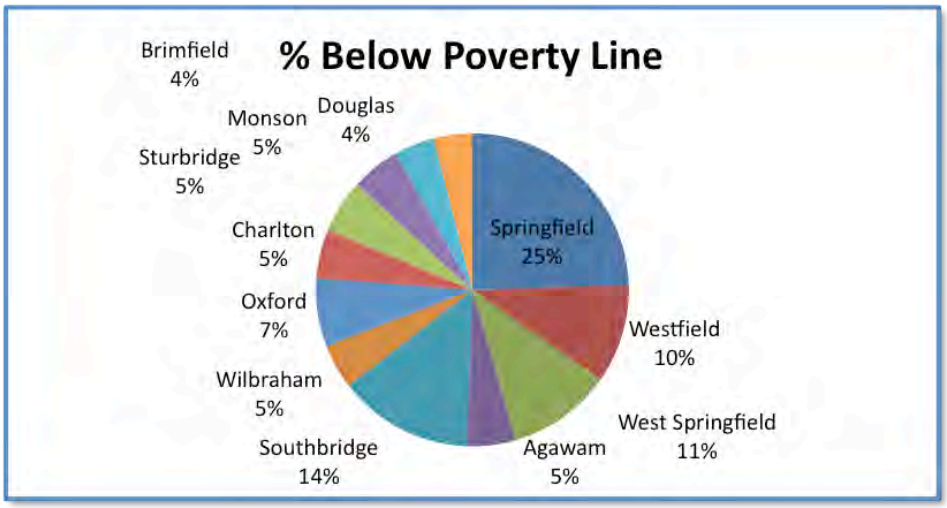
Appendix D: List of Acronyms

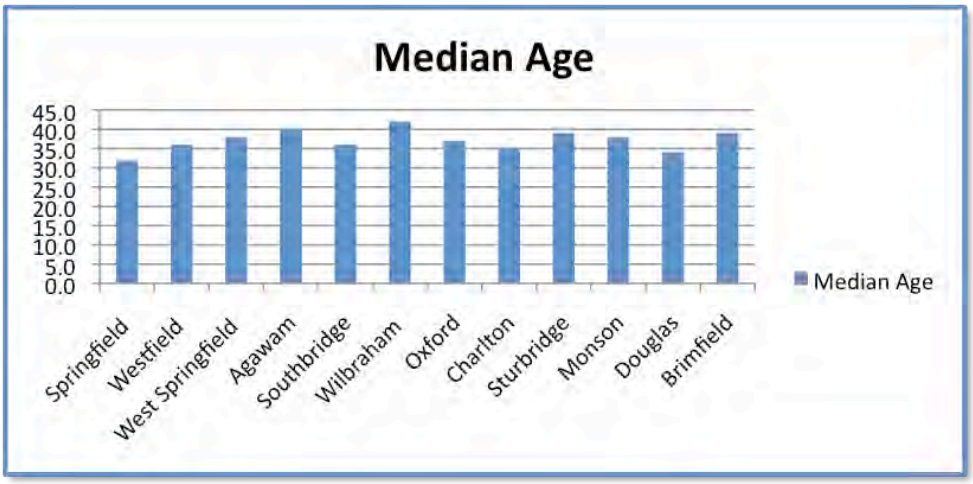
Acronyms	Meaning
AAR	After Action Report
APAN	All Persons Access Network
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
CERC	Crisis and Emergency Risk Communication
CERT	Community Emergency Response Team
CMED	Central Massachusetts Emergency Medical Dispatch
COOP	Continuity of Operations
DART	Disaster Animal Response Team
DoD	Department of Defense
DPW	Department of Public Works
EM	Emergency Management
EMAC	Emergency Management Assistance Compact
EMAP	Emergency Management Accreditation Program
EAS	Emergency Alert System
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
ESF	Emergency Support Function
FCC	Federal Communications Commission
FOG	Field Operations Guide
GIS	Geographic Information System
HAZMAT	Hazardous Materials
HIPAA	Health Insurance Portability and Accountability
HIRA	Hazard Identification, Risk Assessment
HUD	Housing and Urban Development
IMAT	Incident Management Team
IAPs	Incident Action Plans
ICS	Incident Command System
LSS	Lutheran Social Services
MA-TF	Massachusetts Urban Search and Rescue Task Force
MassDEP	Massachusetts Department of Environmental Protection
MAPC	Metropolitan Area Planning Council
MCI	Mass Causality Incident
MEMA	Massachusetts Emergency Management Agency
MOU	Memorandum of Understanding
MRC	Medical Reserve Corps
NERAC	Northeast Homeland Security Regional Advisory Council
NIMS	National Incident Management System
NGOs	Nongovernmental Organizations
NIMS	National Incident Management System
PIO	Public Information Officer
PSAP	Public Safety Answering Point
RACES	Radio Amateur Civil Emergency Service
REPs	Requesting Eligible Parties
RFID	Radio Frequency identification technology,
RMCSU	Regional Mass Casualty Support Units
SAR	Search and Rescue
SMART	State of Massachusetts Animal Response Team
SOPs	Standard Operating Procedures
TCL	The Target Capabilities List
TEP	Training and Exercise Plan
US&R	Urban Search and Rescue

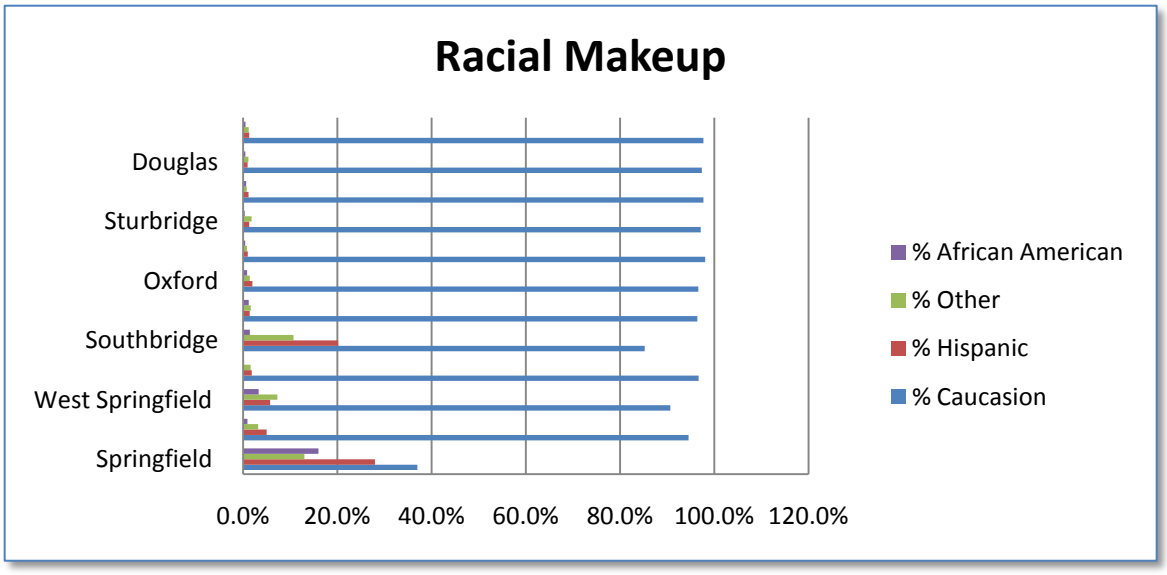
Appendix E: Demographics by Town

Below are graphs that give a visual representation of the demographics of each of the impacted communities.






Median Age
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Springfield
Westfield
West Springfield
Agawam
Southbridge
Wilbraham
Oxford
Charlton
Sturbridge
Monson
Douglas
Brimfield
Median Age


Racial Makeup
Douglas
Sturbridge
Oxford
Southbridge
West Springfield
Springfield
0.0%
20.0%
40.0%
60.0%
80.0%
100.0%
120.0%
% African American
% Other
% Hispanic
% Caucasion

Appendix F: MA –TF 1 Springfield Tornado After Action Report

MASSACHUSETTS TASK FORCE 1

AFTER ACTION REPORT

TORNADO RESPONSE: SPRINGFIELD, MA

JUNE 1 – 3, 2011

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4. Authorship: This After Action Report was compiled and written by Chad Council of the for Massachusetts Task Force 1 Planning Team

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

In response to the Tornado that struck Western Massachusetts on June 1, 2011, Massachusetts Task Force 1 was activated as a Type I US&R Task Force by the Massachusetts Emergency Management Agency. **This was the first official activation of MA-TF 1 as a Type 1 US&R Task Force by MEMA.**

Over the next 36 hours, MA-TF 1 proceeded to:

1. Mobilize an 80 person US&R Task Force in 3 hours. This is ½ of the 6 hours allowed by FEMA for mobilization to a no-notice event.
2. Transport 110 miles from Beverly, MA to Springfield, MA
3. Establish a Base of Operations
4. Interface with Incident commanders for Springfield and West Springfield, MA
5. Search and provide an initial structural assessment for 536 structures
6. Demobilize and return to Beverly, MA

This After Action provides details on the MA-TF 1 response to incident, including best practices and lessons learned.

MISSION SUMMARY

At 16:44 on June 1, 2011, the media reported a tornado touchdown in Springfield, MA. Shortly thereafter, numerous collapsed structures were reported in the area. MA-TF 1 immediately started organizing its personnel and monitoring the situation. At 18:05, a verbal request for Urban Search & Rescue assistance was received from the Massachusetts Emergency Management Agency (MEMA) and the MA-TF 1 Advance Team departed for Springfield.

Upon arrival in Springfield, MA, the MA-TF 1 Advance Team interfaced with the Incident Commanders for both Springfield and West Springfield. Two areas were identified as needing more thorough searching for potential survivors trapped in collapsed structures. In addition, both towns requested assistance with initial structural assessments of the damaged structures.

At approximately 21:00, MA-TF 1 received signed activation orders from MEMA to deploy a Type I US&R Task Force. This 80 person team departed Beverly, MA at midnight and arrived at the Basketball Hall of Fame Staging Area at approximately 02:00 on June 2.

At 03:00, the full MA-TF 1 Task Force received a briefing with their assignments:

1. Squad A and Squad C would immediately begin a rest cycle, and start a comprehensive search and initial structural assessment of the Union St. area of West Springfield at 0800.
2. Squad B and Squad D would continue to work through the night and perform a comprehensive search and initial structural assessment of the Six Corners neighborhood of Springfield, MA.

The night shift (Squad B and Squad D) completed 131 structures in the Six Corners area of Springfield and then responded to a secondary structural collapse on Main St. in Springfield. The Day Shift completed 406 structures in the Union St. area of West Springfield. All US&R work was completed by 20:00 on June 2, 2011.

At 08:30 on June 3, MA-TF 1 was completely demobilized and departed Springfield, MA. All members returned to Beverly, MA without injury. By 13:00 on June 3, MA-TF 1 was returned to Federal Service.

METHODOLOGY

This After Action Report follows the format and methodology as prescribed by the FEMA National Urban Search & Rescue Response System Planning Team as of 2011. Specifically, the following steps were taken:

1. **Phase One Debriefing**: Before demobilization, the Task Force facilitates an internal hot-wash and debriefing. The Phase One Debriefing includes a summary of the incident response, and allows team members to voice concerns or ideas that could improve the response.
2. **Phase Two Debriefing**: After the task force has returned home, the management staff meets to discuss the response. All suggestions and issues are recorded to be included in the final after action report. Also, every team member who was involved in the response, whether deployed or assigned to our Beverly Operations Center for support, is also required to submit a written After Action Form to report shortfalls and suggested improvements. For this report, 85 individual After Action Forms were collected.
3. **After Action Report:** All of the submitted after action reports are collated, evaluated, and integrated into this final report. The final After Action Report also references other sources of incident documentation:
    a. US&R Tactical Action Plans
    b. Incident timeline
    c. ICS Forms
    d. GPS data
    e. Incident photos

The outline of this After Action Report is in the National US&R Response System recommended format for US&R after action reports.

EVENT CHRONOLOGY

This section describes the incident response in phases. The full timeline can be reviewed in *Appendix A: Incident Timeline*.

NOTIFICATION

Members of MA-TF 1 were notified of the event unfolding in a tiered approach:

1. **Manager Email**: As soon as the tornado touched down and reports of structural collapses were made by local fire departments, an email was sent to the Task Force managers. The email described as much of the situation as was known, and that there was a possibility of in-state activation. Managers were advised that the entire team would be requested to provide their availably soon.

2. **All Team Email**: As the prospect of a state activation become more possible, all team members were notified via an email distribution list (ALLFEMA) to contact their managers with availability. Team managers communicated with their disciplines via email and telephone.

3. **All Team Page:** When the MEMA Activation was fully authorized, all team members were notified using a paging system. This system sends a text message to each team member's personal cell phone or pager. It should be noted that this system is tested once a week, and all members are expected to report any missed test pages so that they can be corrected.

ACTIVATION

MA-TF 1 typically receives signed activation orders from the FEMA US&R Program Office. However, this was in-state activation, and no such activation had been performed before.

MA-TF 1 worked verbally with MEMA and followed up with a written estimate of cost and mission capabilities.

A signed activation order was received from MEMA at around 21:10 on June 1.

MOBILIZATION

With the verbal activation, the MA-TF 1 Advance Team departed towards Springfield, MA. This team consists of representatives from: Task Force Leader, Medical, Structural, Logistics, Rescue, and Planning/Technical Information. Their mission was to check the pathway for travel

by the Task Force convoy, interface with Incident Command, and to facilitate entry into the area by the full Task Force convoy. This Advance Team departed Beverly at 19:56.

Once the activation orders were received a broadcast message was sent to all MA-TF 1 members. All available members were asked to report to Beverly, MA immediately for activation.

Due to the previous alerts, many Task Force members were already at Beverly or headed in that direction. In addition, MA-TF 1 managers were also at the Beverly headquarters. As per the MA-TF 1 Memorandum of Understanding with employers, members who were actively working did not leave their posts until the activation orders were received and backfill could be authorized.

All 80 deploying team members were processed as follows:

1. Initial check-in
2. Medical screening
3. Personal equipment check
4. Personnel deployment eligibility check
5. Team position roster placement
6. Vehicle riding list placement

After approximately 3 hours from the initial all team notification, the full Task Force convoy departed Beverly, MA towards Springfield, MA.

The National US&R Response System calls for a Task Force to be on the road within 6 hours of formal activation for a no-notice event.

TRAVEL

The 110 mile highway path from Beverly, MA to Springfield, MA is well known by Task Force members and did not require extensive travel planning.

The Advance Team confirmed that the highway path from Beverly to Springfield was clear of heavy traffic or debris and would be passable by the MA-TF 1 convoy. The Advance Team did enter the area soon enough after the Tornado event that severe rain, wind, and roadway flooding were a safety concern. Travel speeds were reduced and the Task Force convoy was advised.

The duration of the trip was short enough that the convoy did not need to stop for food, fuel, or restroom facilities. Travel from Beverly, MA to Springfield, MA was completed in approximately 2 hours and was without incident.

ON SITE OPERATIONS

Once on site, MA-TF 1 setup a Base of Operations in the south parking lot of the Basketball Hall of Fame in Springfield, MA. Based on consultations with Springfield and West Springfield Incident Commanders, the Task Force was tasked with two missions: One in Springfield to be conducted immediately, and one in West Springfield to be conducted at first light.

As per US&R Concept of Operations, each of the 4 Rescue Squads was combined with members of other disciplines to form multidisciplinary Squads. When deploying to the field, these Squads contain a Rescue Squad Officer, 5 Rescue Specialists, a Medical Specialist, a Canine Search Specialists with a Search Canine, a Hazmat Specialist, a Structural Specialists. The 4 Squads are further supported by 2 Technical Search Specialist and 2 Technical Information Specialist.

SIX CORNERS, SPRINGFIELD

Squad B and Squad D were the night shift, and took on the assignment of providing search and rescue with initial structural assessment for the Six Corners area of Springfield, MA. A rapid search of the area had been conducted already, but there were numerous collapsed and severely damaged structures that may have still contained trapped survivors. The area is a triangular area defined by Central St., Florence St. and Hancock St. The search commenced from 04:00 until 07:00.

Partway into the search, an additional request came in to check on the Pennsylvania Ave. and Chesterfield Ave. area of Springfield. Squad D took that mission while Squad B completed the Six Corners area. Once Six Corners were complete, Squad B rejoined Squad D and completed clearing Pennsylvania Ave. and Chesterfield Ave.

The rules of engagement were:

1. Evaluate the structural integrity of each structure
2. If the structure was damaged:
    a. Check for hazards, structural integrity and live utilities before entering
    b. Conduct a search of the structure
    c. Document the damaged structure
3. Attempt to account for empty structures by talking to neighbors
4. Several structures were damaged and occupied. Residents were advised that the structure was unsafe and encouraged to leave.

The squads were accompanied by Springfield Police at all times.

As the night shift was winding down and preparing to rest, a secondary collapse occurred in the Main St. area of Springfield. Local police and fire requested assistance from MA-TF 1. Squad D and Squad B expedited travel to the area and provided needed assistance.

Once completed, Squad D and Squad B returned to the Base of Operations for debrief and then went to rehab for the afternoon. Due to the timing of the incident, members of Squad B and Squad D had been working for over 30 hours, not including any awake time prior to deployment..

UNION ST., WEST SPRINGFIELD

Squad A and Squad C were identified as the Day Shift and immediately began a rest cycle at approximately 03:30. The concept of operations of 2 squads blitzing and 2 squads going immediately to rest and beginning at the day shift is standard for incidents that require 24 hour operations sustained over several days. The day shift then began active operations at 08:00.

The area of Union St. in West Springfield sustained heavy damage. Squad A and Squad C worked with West Springfield Fire and West Springfield Police to conduct a systematic search of damaged structures. Additionally, the squads conducted an initial structural assessment of each structure. The area of operation was defined by Union St. on the south and the Connecticut River on the north. The western boundary was up to and including Worcester St and the eastern boundary was the railroad tracks. An additional area just south of the railroad tracks was added to the operation. This area was bounded by Main St., New Bridge St. and the Connecticut River.

The rules of engagement for the West Springfield operation were:

1. Evaluate the structural integrity of each structure
2. If the structure was damaged:
    a. Check for hazards and live utilities before entering
    b. Conduct a search of the structure
    c. Document the damaged structure
3. Attempt to account for empty structures by talking to neighbors
4. Any residents still residing in an unsafe structure were required to evacuate the structure.

The two day shift squads worked until the mission was complete at 19:00.

DEMOBILIZATION

All Search and Rescue operations in Springfield and West Springfield were completed by 20:00 on June 2. The Task Force leader consulted with the Mass Task Force Liason at the MEMA EOC and MEMA had no further missions for the Task Force. At this time the decision was

made to demobilize the Task Force. The Task Force began demobilization of the Base of Operations at 21:00 on June 2. The majority of this task was completed by 23:00. Since most Task Force members had been operating without sleep for over 24 hours, the decision was made to depart Springfield in the morning.

At 06:30 the Task Force held its Phase 1 debriefing and hot wash at the Base of Operations in the southern parking lot of the Basketball Hall of Fame. The Advance Team departed at 08:00 and the full convoy departed 30 minutes later.

All vehicles and team members arrived safely at Beverly, MA and went through a demobilization checkout process. The Task Force was fully demobilized by noon on June 3.

POST MISSION ACTIVITIES

After the demobilization, MA-TF 1 performs certain tasks to return to full service, rehab equipment, and ensure the continued wellbeing of its members.

EQUIPMENT REHAB

All MA-TF 1 equipment rehab was completed as per Task Force operating procedures.

CISM

One of the deployed MA-TF 1 Medical Managers addressed the Task Force via email, reminding them of the signs and symptoms of Critical Incident Stress. Contact information for assistance was provided to the team. This information was reinforced as part of the Task Force training meeting on June 18.

DEBRIEFINGS

There were 3 debriefings for this deployment. First was the phase 1 debriefing (hot wash) that occurred on the morning of June 3 before departing the area of operation. Secondly, the Task Force Managers had a debriefing during their monthly meeting in June. Lastly, a full team debriefing and discussion occurred at the June 18 training session.

INFORMATION AGGREGATION: WEST SPRINGFIELD FIRE, FEMA SITUL

MA-TF 1 Technical Information continued to package the documentation after demobilization. An initial package representing the bulk of the information was made available at 09:45 on June 3. This was in the form of downloadable files on a Task Force website and consisted of photos, GPS information, and initial compilation of structural assessment information.

Due to the volume of information and compressed time period for the deployment, the remaining structural assessment documentation was collated by June 6.

This information was disseminated via email to MEMA, FEMA Region 1, FEMA US&R Program Office, MA-TF 1, and West Springfield Fire and GIS departments.

POST INCIDENT FLYOVER: FEMA REGION 1, NATIONAL WEATHER SERVICE

Approximately 2 weeks after the response, MA-TF 1 was asked by FEMA Region 1 to participate in a Civil Air Patrol fly-over for photo documentation of the tornado path and damage on the ground. Two members of MA-TF 1 went on this mission and provided the photos to FEMA Region 1, MEMA and the Region 1 National Weather Service.

EVALUATION

This section provides a team-wide self-assessment of the MA-TF 1response to the tornado. It is broken into two major sections: Task Force specific related items and Mission Specific items.

TASK FORCE

MA-TF 1 deployed as a Type I US&R Task Force. This equates to 80 personnel and 2 or more Operation Center staff. The Task Force has the capacity to support 24 hour operations when indicated by the mission.

ORGANIZATION

This mission was not a federal activation and was therefore not restricted by the FEMA US&R staffing model. Due to the wide area nature of the incident, and the potential for significant structural assessment and information processing, the MA-TF 1 leadership opted to modify the staffing to meet mission requirement, while keeping the total numbers the same.

Specifically, the 10 Support Positions (often called 'drivers') were used to add additional Canine Search Specialists, Structural Specialist, and Technical Information Specialists.

This choice in staffing proved to be a wise decision, as the event did in fact become a structural assessment and information processing intensive operation. The additional canines also facilitated a faster search process, giving each squad 2 canines.

As indicated by the post-deployment timeframe of finalizing documentation, the information processing requirements for this mission exceeded the capacity of the deployed staff.

MA-TF 1 maintained the FEMA US&R organizational structure, with 4 interdisciplinary squads, 2 assigned to nights and 2 assigned to days. This worked well and allowed the Task Force to segment out search assignments and support new assignments as they were inserted into the response.

CALL-OUT PROCEDURES

The Task Force has been steadily improving its notification process for potential in-state events. Most members were generally made aware of the potential deployment very early on. Some members report not receiving the notification emails and some members report not receiving the notification page. Some members also report it was confusing to receive messages requesting availability, another message requesting volunteers, and another message indicating activation.

OPERATING PROCEDURES

One of MA-TF 1's greatest assets is the Task Force's ability to adapt to the incident requirements. The requested mission to include structural assessment collection along with wide area search & rescue was outside the normal scope of US&R operations. However, the Task Force was able to adjust their operations and complete the mission.

Another challenge for a US&R Task Force is to conduct operations in two geographically separate areas. Separation puts strain on the Command element and presents significant challenges to Logistics. This is a skill that MA-TF 1 has been improving over the years. The most recent Task Force Full Scale Mobilization Exercise focused on performing two missions in two different locations. The lessons learned from that exercise in May of 2011 were incorporated into the Tornado response in June.

OPERATIONAL CHECKLIST

Individuals within the Task Force did use operational checklists when indicated. Primarily these included the Planning Team Manager, Technical Information Specialist, and Communication Specialists.

All team positions would benefit from developing and following operational checklists.

POSITION DESCRIPTIONS

For the most part, all team positions functioned as described in the accompanying position description. The exceptions were Operations, Squad Officers, Structural Specialists and Technical Information Specialists. These 4 disciplines took on additional responsibilities to provide the structural assessment information collection.

EQUIPMENT

Most Task Force equipment functioned as expected. There were some issues with communications equipment that delayed information gathering. Some other equipment issues also caused some additional effort to be expended to re-establish communications. These items have been identified and incorporated into the Communications Repair Log. Some of the Technical Information cache requires upgrading or replacing.

FIELD OPERATIONS GUIDE

Some of the newer members of MA-TF 1 should be reminded to consult the US&R FOG. There were no shoring, cutting, or breaching operations to necessitate the SCT FOG.

The Medical Team indicated that development of a FOG Manual specific to their duties would be beneficial.

TASK FORCE TRAINING

MA-TF 1 represents thousands of hours of training. The Task Force is exceedingly well trained in all areas of operations. The Task Force also supports a tremendous amount of cross-training. This has the benefit of allowing disciplines to know how to interact with other disciplines, or to perform some of their functions if needed.

Given the structural assessment and technical information aspect of this response, MA-TF 1 would benefit from additional cross-training in the areas of Planning, Technical Information, and Structures.

The members of MA-TF 1 continue to exhibit self-initiative and motivation to better prepare themselves to meet the challenges presented by the US&R mission.

MISSION OPERATIONS

The tornado response operations were similar to other missions MA-TF 1 has conducted. In some ways, this mission combined the wide area search elements from Hurricane Katrina with the structural assessment mission of the Danversport Explosion.

Again, MA-TF 1 Command made decisions about how to perform the required mission and adapted the Task Force to the specific mission requirements.

ALERT / ACTIVATION PROCEDURES

This was a mission requested by the Commonwealth of Massachusetts. As such, it did not follow the typical FEMA US&R methodology of a formal Alert followed by a formal Activation. The Task Force has been working with MEMA for quite some time on making this process easier.

For this event, there were some delays in generating the activation paperwork that MA-TF 1 requires, but the activation did eventually come through.

LOGISTICAL MOVEMENT AND RESUPPLY

The Logistics team on MA-TF 1 performed exceedingly well during this deployment. Team members were fed, provided shelter for rest periods, provided transportation to and from the rest area, and provided transportation to and from two geographically separate mission areas.

There were isolated instances of tools and equipment not being available immediately, the mobilization vehicle riding list was slow to be generated, and there were some challenges with accounting for issued gear.

ON-SITE COORDINATION WITH IST, NRCC, OTHER TF'S

This was a state activation, so there was no FEMA Incident Support Team and we had no required interaction with the NRCC. No other US&R Task Forces were present.

SAR OPERATIONS

MA-TF 1 performed essentially what would be considered a mixture of Primary Search and Secondary Search in the current FEMA US&R Terminology. These definitions are derived from the US&R Planning Team Training, US&R Search Management Training, and Wide Area Search Management Training conducted by FEMA.

For most structures, the Task Force conducted a Primary Search, which is a quick search of buildings that may contain trapped survivors or deceased victims. The Primary Search involves knocking on doors or windows, circling the structure, assessing the likelihood of survivors, and incorporating the use of canine searchers.

For some structures, the Task Force also conducted a Secondary Search. A Secondary Search consists of looking behind every door of every room of a structure.

For this mission, MA-TF 1went structure to structure and performed the type of search indicated for that specific structure. For example, if a structure was mostly intact or undamaged, and there were no responses to hails, the structure was deemed to be unoccupied. If the structure had moderate to major damage, a primary search was mostly conducted. For some larger structures such as condominiums and apartment buildings, a Secondary Search was conducted.

The FEMA Wide Area Search doctrine suggests that the most efficient approach is to conduct a Recon of an entire area, and then a Hasty Search (quick hailing, visual check) of that entire area. Once that is done, then a Primary Search is conducted for the entire area. Lastly, once the Primary Search is completed, a Secondary Search is conducted for that entire area.

The key difference between the FEMA Wide Area Search method and what MA-TF 1 performed is that MA-TF 1 conducted secondary searches as they were indicated, instead of waiting until the Primary Search of the entire area had been completed.

MA-TF 1 would benefit from more individuals attending the FEMA Wide Area Search Management training so that the methodologies can be considered and implemented *if necessary*, when conducting a Wide Area Search.

INTEGRATION WITH LOCAL INCIDENT MANAGEMENT STRUCTURE

MA-TF 1 coordinated with MEMA officials upon arrival. For each of the missions, MA-TF 1 worked directly with the local Incident Commander.

RECOMMENDATIONS FOR CHANGES WITHIN THE TASK FORCE

The vast majority of recommendations in this section are intended to fine tune the operations of MA-TF 1. These recommendations are an aggregation of suggestions from each individual on the Task Force that was involved with the deployment.

STATEMENT OF ISSUE: NOTIFICATIONS AND CALL OUT PROCEDURES

The Task Force notification and call out procedures need to be more consistent and timely.

BACKGROUND DISCUSSION

MA-TF 1 primarily uses 4 types of notification systems:

1. Email for Managers
2. Email for the entire team
3. Pager Notification for the entire team
4. Telephone Robo-call notification for the entire team

These systems are periodically tested, and members know to insure that they're able to receive these notifications. However, the Task Force does not have a standard operating procedure for notifications of in-state activation. The Task Force did follow an escalation approach, but this did not reach all members in a timely fashion.

RECOMMENDED ACTION

The Task Force should continue to test the notification systems weekly. In addition, the Task Force should:

1. Develop a Standard Operating Procedure for in-state activation notifications
2. Make the paging system more readily accessible to Task Force members
3. Provide training to Task Force staff members on the use of the paging system
4. Reinforce the importance of members keeping contact information current
5. Reinforce that members should report not getting test messages in a timely manner

STATEMENT OF ISSUE: MOBILIZATION

The Mobilization Process for MA-TF 1 needs to be streamlined.

BACKGROUND DISCUSSION

The mobilization for a no-notice event is certain to have a degree of chaos to it. However, there are measures that can be taken to streamline the process and reduce confusion. During this process, the members of the Task Force must:

1. Travel to Beverly, MA
2. Check-in
3. Undergo a medical screening
4. Undergo a personal gear verification
5. Get issued any mission specific gear
6. Identify which members are current in their training, certifications, immunizations, etc.
7. Identify which members will be deploying and in what position – based on mission type, member qualifications, member status ("Green Status") and availability.
8. Create a travel plan
9. Create a Roster of the team
10. Create a Riding / Vehicle Assignment List

It is important to note that each of these steps must be completed by the Team Members themselves. There is no outside staff available to perform the check-in duties. This puts those members performing the check-in stations in a position of needing to complete their own check-in process. Timely relief of these individuals did not occur.

There was also staffing confusion when completing the final roster – individuals who expected to deploy and were on the roster at one point did not make the final list.

RECOMMENDED ACTION

MA-TF 1 should establish a focus group amongst Planning, Technical Information, Logistics, and Command to leverage technology to streamline the Mobilization Process. In addition, managers involved in establishing the deployment roster must be pro-active and insure that their staffing needs are met.

STATEMENT OF ISSUE: CAPABILITIES INFORMATION PACKET

MA-TF1 should have an information package available for the Authority Having Jurisdiction (AHJ). This packet could be delivered to the Incident Commander (IC) or his/her designee. This information could inform the AHJ of our capabilities as well as our procedures in the field.

BACKGROUND DISCUSSION

During deployments it is often unclear to the IC exactly how MA-TF 1 can help. Despite the lack of time during a disaster to thoroughly read an information package, having such documentation that states our capabilities and our procedures would greatly assist in communicating the team's role and capabilities to the IC. The packet could include a Field Operations Guide (FOG) as well as other established documentation which the operations person could take a look at from time to time if questions were to arise (i.e. Why does that building have an X in a box?)

RECOMMENDED ACTION

Develop an information packet that is informative while remaining concise.

STATEMENT OF ISSUE: INFORMATION PACKET FOR SQUADS

When squads are deployed to an area where the population is still in residence, the squads should be provided with helpful information to provide to those residents.

BACKGROUND DISCUSSION

There were a significant number of individuals who were still living in the area being search by MA-TF 1 squads. Additionally, some individuals were attempting to reside in their unsafe houses. Many of these individuals were asking squad members about shelter provisions. The Medical Team Manager did provide residents with information and resources for traumatic stress, but the Task Force did not have information about the location of the shelters setup for this incident. Some of the areas were largely an immigrant population, and at-risk individuals were afraid to seek shelter due to unclear immigration status. Shelters are required to shelter those in need regardless of status. Such information could be included in the Tactical Action Plan that is distributed to the Squads.

RECOMMENDED ACTION

The Task Force should work with any IC to learn what sheltering provisions are in place for an incident. MA-TF 1 squad members should be briefed on the specifics so that they can communicate with the residents.

STATEMENT OF ISSUE: STRUCTURE MARKING CONSISTENCY

Structure marking must be consistent and communicated to other agencies.

BACKGROUND DISUCSSION

MA-TF 1 must be consistent in how it marks structures. There 3 marking systems in use by US&R: Structure Marking, Search Marking, and Victim Markings. There were some instances of confusion among MA-TF 1 members and other agencies. Other agencies were following their own marking system, which added to the confusion.

RECOMMENDED ACTION

MA-TF 1 members should review the current marking methodologies. A review should be given as part of pre-mission briefings. A single page legend flier should be generated and distributed to MA-TF 1 members as well as other agencies working in the area.

STATEMENT OF ISSUE: PLANNING / BRIEFING CYCLE

The Planning Team needs to establish a meeting and briefing schedule throughout the incident. These meeting times, places, and attendees must be visibly published at the Base of Operations and all members must be informed of their time and location by their managers.

BACKGROUND DISCUSSION

The Planning Team is responsible for establishing and running a briefing and meeting schedule. As part of that, the meeting times, locations, and attendees need to be published at the Base of Operations. This includes full-team meetings, planning meeting, operations meeting, etc. During this incident, most of these meetings were held, but the schedule or location was not well publicized.

The demobilization plan with final briefing time and location was established, and single page announcements were distributed. However, not all team members received these notifications causing them to miss some important briefings.

RECOMMENDED ACTION

The Planning Team should use the Planning Meeting Checklist to ensure that the appropriate meetings and briefings are established and carried out and their times and locations published. A more rigid dissemination of that information should be followed by Task Force managers to their teams.

STATEMENT OF ISSUE: OPERATION CENTER

The Operations Center needs revision, documentation, and training for Task Force members who staff the facility during an incident.

BACKGROUND DISCUSSION

Each deployment, several Task Force members staff the Operations Center in Beverly. This role provides critical support to the Task Force while they are deployed. The assignment is challenging because the individuals staffing the operations center may not be familiar with the equipment. The Operation Center equipment should be clearly labeled as to function and operation procedures. The Ops Center should also have a documented Standard Operating Procedure that includes duties, equipment operation, location of resources, contact list for Task Force family members, and some small amount of discretionary funding to support the operation as needed. Work has been done towards this goal, but it is incomplete.

Use of the Operation Center and the role of that position should be developed into a training program. This will allow Task Force members to be familiar with the equipment and the SOP.

The deployed Task Force management should also be sure to include the Operation Center with progress updates as often as possible.

RECOMMENDED ACTION

The following actions should be taken to maximize use of the Operation Center:

1. Complete the OPS Center Operation Manual
2. Better document the equipment use and function
3. Develop and implement a training program to certify Task Force members as Operation Center Staff.

STATEMENT OF ISSUE: HAZMAT GEAR PACKING

The Hazmat Team should reconsider how their field gear is packed when not on deployment.

BACKGROUND DISCUSSION

Much of the Hazmat equipment is stored in the Hazmat office. This is primarily because of the required maintenance for meters and other equipment. Storing this equipment separately requires additional effort during mobilization and can confuse team members as to the whereabouts of equipment. Reconfiguring Hazmat Go Bags to contain most of the equipment so

that only the meters need to be added at the last minute would help alleviate this confusion and save time during mobilization.

RECOMMENDED ACTION

The Hazmat team should consider reconfiguring Go Bags to include needed equipment except for meters that require constant maintenance.

STATEMENT OF ISSUE: GEAR / EQUIPMENT ISSUE AND ACCOUNTABILITY

The issuance of personal gear or team equipment, and the accountability for that equipment, needs improvement and clarification.

BACKGROUND DISCUSSION

There are numerous challenges related to the issuance of personal gear or team equipment during a deployment. Issuing radios during the mobilization phase at the cache helps, especially with the additional assistance of rescue team members. However, tracking these radios should be done with our SharePoint system to make the tracking of radios more efficient.

Hazmat had a difficult time establishing an area from which to issue their gear once at the Base of Operations. There was no unified approach to how gear was issued across disciplines, so they ultimately created their own gear issuance table.

The Technical Information Specs are typically working on numerous time critical tasks in the first 30 minutes of arrival at the Base of Operations. They are also attempting to issue 15 – 20 GPS units to individuals and track who has them. The GPS units are located in 2 different boxes and no rapid accountability / issuance system is in place.

Individual equipment needs by some of the newer members of the team were also handled at the cache during the mobilization. This is time consuming and difficult to track in accordance with the Task Force personal gear distribution policy.

RECOMMENDED ACTION

Logistics should reiterate the current Task Force personal gear policy and reinforce the fact that personal gear shortfalls are the responsibility of the Task Force member.

A comprehensive approach should be taken to examine the equipment issue and accountability challenge. The Task Force should investigate leveraging technology to assist.

STATEMENT OF ISSUE: ACCOUNTABILITY AND SAFETY

Safety and personnel accountability must continue to remain the top priority and be adaptable to the mission at hand.

BACKGROUND DISCUSSION

During this mission there were several accountability and safety situations that required adaptability. The personnel accountability system is improving, but there is still confusion among the members about how the system should work at different phases of the deployment (mobilization, on scene, rehab, demobilization, etc.). Some team members did not have their accountability tags with them, requiring more effort to track them. Additionally, some aspects of this mission required that squads be broken into smaller groups to cover more area more quickly. The accountability approach for this situation was a little unclear.

There was also no clear accountability system established at the hotel. Managers at the BoO knew who was at the hotel, but there was no one at the hotel to account for all team members there at any given time. This could have presented an issue should there be an emergency at the hotel itself.

There were also some mission specific challenges that the Medical Team could have worked out with Safety. For example, the health of team member's feet was never checked after each member walked upwards of 10 miles in boots to perform their mission.

RECOMMENDED ACTION

The Safety Officers should continue to reinforce the importance of personal accountability tags and maintaining accountability at all times. The Safety Officers may want to consider clarifying the approach taken during different phases of a deployment. Medical should interface with Safety to institute any mission specific health checks.

STATEMENT OF ISSUE: STANDARD DOCUMENTATION PACKAGE

The Task Force does not have a standardized package of information we collect, does not follow an SOP for collecting that information, and does not have a reporting mechanism for when that information is collected.

BACKGROUND DISCUSSION

The FEMA US&R Task Force CONOPS does not provide for an information package or reporting mechanism other than the use of the SITREP form. Significant effort went into establishing an information package specific to this event. For future deployments, the Task Force may want to record structural assessment information using the ATC-20 or ATC-45 form.

There was also a lack of paper forms available for Squad Officers, Structures, and TIS to use. The Task Force should also continue to be proactive in pushing information out to all agencies involved. When there is information reporting mechanisms and timelines in place (such as a FEMA US&R IST or a local IC) the Planning Team should be sure to follow that chain of information reporting.

RECOMMENDED ACTION

MA-TF 1 should establish an internal group comprised of Planning, Structures, TIS, Command, Hazmat, and Rescue to work with Massachusetts officials to define reporting expectations and a standard information / documentation package for in-state activations. Once established, MA-TF should establish pre-configured field kits containing paper forms to accomplish the mission. Additionally, MA-TF 1 should consider electronic solutions.

ADDITIONAL EQUIPMENT SUGGESTION / REQUEST LIST

The following additional equipment was identified as pertinent to this mission and should be considered for purchasing:

- Hand Lights
- T1 & T2 Mattress covers
- Traffic Cones for Boo Perimeter
- Standardized GPS cameras
- Additional XTS-5000 radios

RECOMMENDATIONS FOR CHANGES WITH THE NATIONAL US&R RESPONSE SYSTEM

STATEMENT OF ISSUE : STAFFING FOR EXPANDED MISSION TYPES

TIS staffing levels must be considered when setting expectations for information processing.

BACKGROUND DISCUSSION

How information is collected, aggregated and disseminated during a disaster is critical. The FEMA US&R concept of operations provides for periodic reporting using the ICS-209 SITREP form. Anything beyond that in a 12 hour operational period may require additional staff, training, and equipment.

RECOMMENDED ACTION

Once a standard documentation package has been defined for *expanded* mission types such as wide area search and rescue *with* structural assessment, the staffing for information processing should be adjusted accordingly (See "TIS Staffing for Wide Area Events", MA-TF 1/Council) .

RECOMMENDATIONS FOR CHANGES WITH MASSACHUSETTS / IN-STATE ACTIVATIONS

The June, 2011 tornado response was the first time MA-TF 1 was deployed by Massachusetts as a Type I US&R Task Force. As such, there were some challenges throughout the deployment relative to the terms of the deployment, staffing, and timeframes.

STATEMENT OF ISSUE

The Commonwealth of Massachusetts and MA-TF 1 should establish a Memorandum of Understanding detailing the terms of in-state deployments.

BACKGROUND DISCUSSION

Establishing a formal MOU for MA-TF 1 activations in-state would significantly speed up activations, facilitating a more rapid and concise response by MA-TF 1. Efforts to this effect are ongoing.

RECOMMENDED ACTION

Continue working towards a formal MOU between MA-TF 1 and MEMA.

APPENDIX A: INCIDENT TIMELINE

The following incident timeline is based on News, ICS-214 forms, GPS and Photo timestamps.

TIME	EVENT
1-Jun	
16:44	**Media reports tornado touchdown in Springfield, MA**
16:47	MA-TF 1 Emailed managers a report of "partial collapse" in Springfield, MA
17:10	**MA-TF 1 Emailed managers requesting "member availability for tornado outbreak"**
17:10	MA-TF 1 Sent request to ESF Members, Looking for LNO volunteers. Smith, Aspesi, and Bourgeois responded.
17:11	MA-TF 1 Managers begin heading to Beverly.
17:16	**MA-TF 1 Sends First ALLFEMA broadcast requesting members to report availability to managers**
17:42	MA-TF 1 Sends an ALLFEMA broadcast requesting 20 volunteers for a possible State Deployment
17:51	MA-TF 1 Dispatches Medical Specialist Parr to West Springfield as LNO
18:05	MA-TF 1 Sends Managers email: "**MEMA wants us to go to Springfield, arrangements unclear**"
18:13	MA-TF 1 Notifies Fred Endrikat, FEMA US&R Program Branch Chief, of possible state deployment
18:15	FEMA RRCC replies that they do not need US&R LNO's
18:28	MA-TF 1 Requests radio frequency allocation from FEMA MERS / Bob Speakman
19:56	***MA-TF 1 Advance vehicle leaves Beverly: Foster, Seligman, Coleman, Better, Council***
19:57	Verbal request for deployment from MEMA confirmed
21:00	MA-TF 1 Notifies Dave Piland of deployment
21:11	MA-TF 1 Received signed deployment orders from MEMA
21:20	***Full Task Force Activation Notification***
21:55	MA-TF 1 Advance team arrives in Springfield, MA
22:00	MA-TF 1 Advance Team makes Initial Contact with Springfield Fire - directed to ICP and staging area at Basketball Hall of Fame
22:30	MA-TF 1 Advance Team recons staging area for establishment of MA-TF 1 Base of Operations
23:00	MA-TF 1 Advance Team meets with Springfield Incident Command : Receives assignment for Search & Rescue of Six Corners region of Springfield – to be completed when the balance of the task force arrives
23:30	MA-TF 1 Advance Team meets with MEMA representative in West Springfield and interfaces with West Springfield Fire
0:00	***Full Task Force Departs Beverly, MA***
2-Jun	
1:20	MA-TF 1 Advance Team recons Six Corners area, determines the Elias Brookings School Parking Lot at 367 Hancock Street, Springfield, MA can support staging for 2 Squads

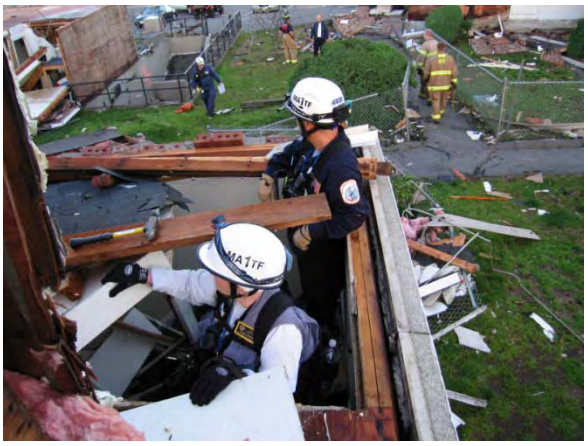
1:40	MA-TF 1 Advance Team Returns to Springfield ICP for face to face - confirms mission, requests law enforcement support
2:00	***MA-TF 1 Task Force Arrives in West Springfield and establishes Base of Operations (BoO) at Basketball Hall of Fame.***
2:58	Acknowledge to Dean Scott at FEMA US&R Program Office that MA-TF 1 is out of federal rotation
3:00	Full Task Force Briefing at Basketball Hall of Fame staging area
4:00	Squad A and Squad C Begin rest period
4:00	Squad B and Squad D begin search and structural assessment of Six Corners Area. Area of Operation defined as: Triangular area defined by Central Street, Florence St. and Hancock St. (Springfield)
5:21	Squad D is redirected to Pennsylvania Ave and Chesterfield Ave area for search
5:21	Squad B assumes the rest of Six Corners area from Squad D
6:45	Squad B Completes Six Corners Area
7:00	Squad B joins Squad D in Chesterfield Ave area
8:00	Chesterfield Ave area complete. Squad B and Squad D return to Basketball Hall of Fame
8:30	Squad A and Squad C Begin Search with Structural Triage of Union St. Area in West Springfield. Area of Operation: Union Street, north to the Connecticut River. Western Boundary: Up to and including Worcester St. Eastern Boundary: The railroad tracks. Additional area defined as north of Main St. (West Springfield) and New Bridge St., extending north to the Connecticut River
8:30	Squad B and Squad D back at Basketball Hall of Fame for Rest and Rehab
9:00	Squad B and Squad D accept additional mission for secondary collapse structure on Main St., Springfield, MA
13:30	Squad B and Squad D complete additional mission and return to Basketball Hall of Fame for Rest and Rehab
19:30	Squad A and Squad C return to Basketball Hall of Fame
20:00	All Team Meal
21:00	All Team Begin Demobilization
23:00	All Team Rehab
3-Jun	
6:00	All Team Breakfast
8:00	MA-TF 1 Advance Team Departs Basketball Hall of Fame
8:30	MA-TF 1 Team Departs Basketball Hall of Fame
10:00	MA-TF 1 Advance Team Arrives at Beverly, MA
10:30	MA-TF 1 Team Arrives at Beverly, MA
13:00	MATF-1 returns to “Available for Federal Activations”

APPENDIX B: REPRESENTATIVE PHOTOS

TASK FORCE BRIEFING: 0300

TASK FORCE BRIEFING: 0300

NIGHT SHIFT BEGINS



SEARCHING DAMAGED STRUCTURE

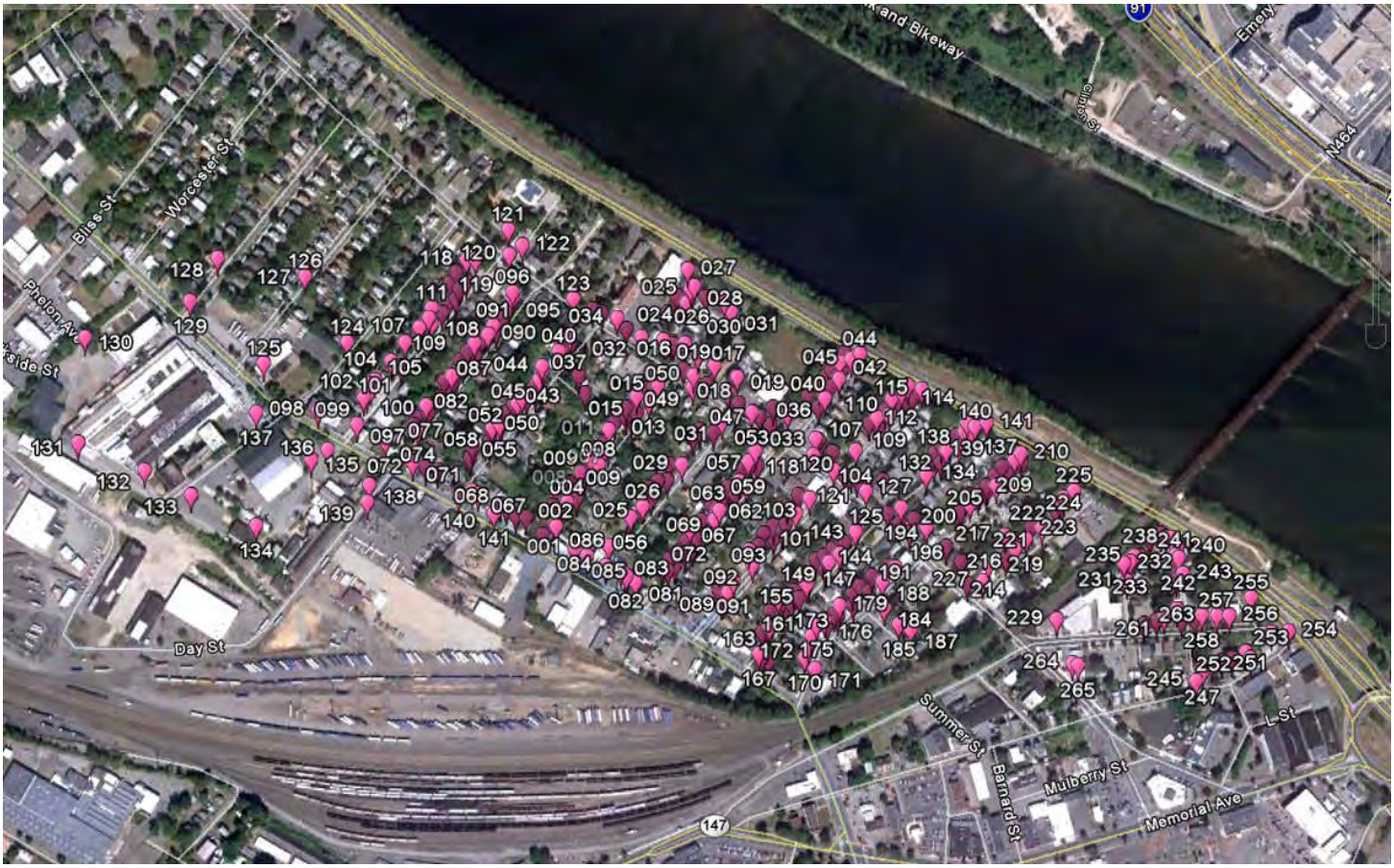
DAY SHIFT WORKING

DAMAGED STRUCTURE SEARCHED AND MARKED

APPENDIX B: AREA OF OPERATION MAPS / GPS DATA

Below are samples of geospatial products created with recorded data.

1: Night Shift OA: Six Corners, Springfield, MA



2 Day Shift: Union St Structures assessed

APPENDIX C: SAMPLE ASSESSMENT DATA

Below is a sample of the structural assessment data collected and compiled.

Wpt	Number	Street	Res or Comm	Frame	Floors	Damage	Notes
J1	667	Union	Res	Wood	3	Collapsed	Propane Grill
J2	87	George	Res	Wood	3	Collapsed	
J3	79	George	Res	Wood	3	Partially Damaged	
J4	75	George	Res	Wood	3	Partially Damaged	
J5	69	George	Res	Wood	3	Intact	
J6	65	George	Res	Wood	3	Intact	
J7	59	George	Res	Wood	3	Intact	
J8	55	George	Res	Wood	2	Partially Damaged	Chimney Falling Hazard
J9	49	George	Res	Wood	3	Intact	
J10	47	George	Res	Wood	3	Intact	
J11	33	George	Res	Wood	3	Partially Damaged	Roof Hanging Hazard
J12	25	George	Res	Wood	3	Partially Damaged	Rear Porch Damage
J13	21	George	Res	Wood	2	Intact	
J14	17	George	Res	Wood	2	Intact	
J15	15	George	Res	Wood	2	Intact	
J16	569	Main	Res	Wood	3	Intact	
J17	585	Main	Res	Wood	3	Intact	
J18	593	Main	Res	Masonry/Wood	2	Intact	
J19	615	Main	Comm	Metal	3	Intact	Boys and Girls Club
J20	20	Burford	Res	Wood	3	Intact	
J21	24	Burford	Res	Wood	3	Intact	
J22	38	Burford	Res	Wood	3	Partially Damaged	Rear Roof Damage
J23	48	Burford	Res	Wood	2	Partially Damaged	Roof Damage
J24	56	Burford	Res	Wood	1	Partially Damaged	Tree on Roof
J26	63	Burford	Res	Wood	2	Partially Damaged	Roof Damage
J27	57	Burford	Res	Wood	2	Partially Damaged	Roof Damage
J28	47	Burford	Res	Wood	2	Partially Damaged	Falling Hazard Right Side
J29	37	Burford	Res	Wood	3	Intact	
J30	21	Burford	Res	Masonry	2	Partially Damaged	Roof Damage - Apt Bldg

Appendix G: After Action Report: Sheltering Care—Western MA Tornado Disaster June 2011. Upper Merrimack Valley MRC

After Action Report:
Sheltering Care – Western MA Tornado Disaster June 2011
Upper Merrimack Valley MRC

Overview
On the afternoon of Wednesday June 1, a series of tornadoes ripped through a wide swath of Western MA, particularly in the areas of Springfield and Monson. Our MRC unit first learned of severe damage by 5 p.m., as the storm reached its peak from 3 to 7 p.m. Governor Patrick declared a state of emergency for the region. Response agencies – including 1000 National Guard troops – were dispatched to Springfield to provide initial assessment and recovery efforts.

On Sunday June 5, MRC units from across Massachusetts were asked to contact their members for availability, in case staffing was needed for shelters. This report describes our unit's experience with sheltering, observations, and some lessons we learned. All comments are to be taken as constructive criticism, with the hope that we are able to learn and improve our future responses.

Staffing Experience
The most effective way we can provide volunteers during a disaster is to know *how many* of *what kind* of volunteers are needed, at what *times* and *locations* – before making a call-out. Still, we complied with the request to put volunteers on standby, by sending an initial notification to all volunteers on June 6, asking their availability.

When we learned more about the needs, we confirmed ten members to staff two shelters:

1. June 8 through 13: Our members were at the West Springfield shelter every day, which was run by the town's municipal agencies.

2. June 21, 22, and 25: We deployed members to the downtown Springfield shelter at the Mass Mutual facility, which was run by the Red Cross.

UMV MRC staff visited the two Springfield shelters at our earliest opportunity, June 12, to learn about the environment in which we were placing our members. We found drastic differences between the West Springfield and downtown Springfield shelters. Our personal observations, e-mails and calls from participants, and the After Action event with volunteers form the basis of this AAR. Additional background is available upon request.

Observations – West Springfield
Primary concerns about the shelter reported by staff during on site visit and volunteers involved safety and sanitation protocols.

- Meals/Food were basically self-serve, from open containers, with minimal supervision. Occasionally local teachers volunteered to help and provided oversight while wearing gloves, but no Serv-Safe personnel were present to commit to ensuring the safety of the food. During our staff visit the person assigned as a shelter manager gave a tour and when she entered the walk in refrigerator, found food sitting in pools of water and was

concerned on how safe any of food was to eat and shared no one had given her any clear direction on how to proceed or where food was coming from.

- There was a lack of attention paid to the other cultures that had difficulties with 'American' shelter cuisine.
- Defined tasks were unclear and often did not follow existing Job Action Sheets. White board was present but not current. Tasks were not identified and assigned a person, to ensure tasks were distributed among the volunteers. Shelter manager stated she had no shelter management training but was assigned the role. One of our own members was asked to assume the "shelter manager" role until staff interceded and clarified he was not trained for that role and needed reassignment. Members stated they felt better having clear JAS , expectations were known ahead of time, and contact person to report to was provided. They were appreciative of the report out of person they were replacing.
- Safety hazards, There were open bleach containers and spray bottles within reach of children, blocked fire exits, an open circuit breaker panel, mounds of unsupervised and unclean clothing, and heavy items stacked on a table (which volunteers moved because of fear it could collapse on a child). One area had been found to be completely without lights, which could be unsafe or pose crime potential.
- Restrooms Cleanliness-No one assigned to clean periodically, and ensure any plumbing issues were handled. A resident eventually took on this task. No security for women's room and during staff visit,teenage boys walked in to bathroom unannounced.
- Need for hand cleaners and disinfectants throughout the facility. Encourage usage of these materials. Similarly, tables and chairs need to be sanitized overnight to prepare for the next day.
- Handicap access- did not appear to have ADA showering or bathing facilities. Perhaps transportation to such facilities could be arranged if unavailable at the shelter.
- Child safety-We discovered major security issues. One child had gone missing for hours. After hours of searching child was found to have left in a car with his brother. Neither parent was aware of child's departure and police and volunteers were searching the area for hours. Children were roaming in and out of the building and onto the main street. Children were clearly bored. It might have helped to invite student volunteers who would engage children in activities: art work, games, and so forth and a tighter security.
- Need for accurate head count- This is even more crucial if an emergency evacuation were required. With no means of knowing how many people are in the building, there's no way to confirm whether everyone was out. Thus some type of guest register would seem mandatory, ensuring check-in and check-out of the shelter.
- Need social services table- It would have been helpful to post contact information for shelter residents to access housing and various– perhaps also to post times when representatives from these services could stop by to answer questions and provide information.
- Medical Station. There was no phone in the first aid / medical station or on premises requiring volunteer nurses to use their own phones to make arrangements for transport to hospital. Medicines (prescription and others) were unsupervised , left lined up in the laundry facility, where residents entered at will to wash their clothing.
- No followed protocols for report- outs or record keeping-There was no evidence of *protocol* for report-outs or record-keeping (though each outgoing shift did make attempts to transfer information to the incoming staff). There was one microphone with which to make announcements to residents, though it's unclear whether it worked or if anyone actually used it.
- Need for identified translators-It would have been helpful to have translators readily available, and in general to ensure cultural sensitivity to the shelter population, which

was largely comprised of immigrants. The need was somewhat alleviated because many of the children were bilingual.

Observations – Springfield
This shelter was well lit, centrally located, abundantly staffed, and supported by National Guard and local police. Packaged food was provided by professional catering companies, and trays of open casseroles were dished out upon request by trained staffers. Children were entertained by groups that included the U.Mass women's basketball team, and volunteers overseeing clearly marked and sanitized play areas.

Our biggest concern we experienced at this facility was that the three members we deployed, questioned whether their services were really needed. The third was dismissed within an hour of her arrival. It would have been much better to have someone coordinating the staffing across response groups, and across shelters, to ensure beforehand that volunteers were being assigned appropriately. When our volunteers found they had time on their hands, no one considered contacting the other shelter to see if additional help was needed.

Lessons Learned
Statewide responses are far more complex than those confined within our service area. Some lessons we learned through staff/volunteer debriefing on this type of response are as follows:

1. **Need for Point of Single Contact for Initial Notification** – It is helpful when *one central authority* provides 'breaking news' to MRC unit leaders about a potential emergency, with updates when more detail becomes available and remains current on needs and keeps a master schedule updated.

2. **Need to tap into units in closest proximity to the Event First**-Units closer to the area shared they were not contacted to assisit yet units hours away were sending volunteers to fill shifts

3. **Need for a Good Volunteer Registration/Assignment System**– Basic features for an effective registration were lacking: identifying staffing needs at the shelters, coordinating MRC volunteers with those on site from other agencies, soliciting relevant detail about member capabilities, matching medical members to medical assignments, and monitoring assignments in light of changing needs. A simple phone call between one entity responsible for matching volunteers with shelter needs, and the shelter manager at each facility, on a regular basis would seem logical. Clear delineation of Incident Command procedures did not seem apparent – within each shelter, and across the management of agencies involved.

4. **Need to address Shelter Safety** – We know that the initial phase of any disaster involves some chaos and 'sorting out' of essential details, and that our members may be asked to serve in austere conditions. However, our first volunteer was assigned to a shift eight days after the disaster, to a shelter that had been operating for a week. We assume that unit leaders have a right to expect that the shelter where our members are asked to serve will be safe and minimize liability. Volunteers sited this as one of the number one concerns from their perspective. From being assigned positions that they were unqualified for (ie shelter manager) to lack of thorough facility inspections prior to or

during the event and unsafe health/medication area – the outcomes could have been much worse and put unnecessary liability on the volunteer pool.

5. **Need for an effective Shelter Volunteer In take Registration System** – At the shelter where we sent our members for the first week, there was no working system to track who was coming to the shelter to provide care, what their capabilities might be, nor even who was 'in charge' at any given time. The names scribbled onto white boards were out of date and incomplete. Registration book at front table was not current. Police who sat at desk when asked who was in charge stated "MRC" yet in questioning the volunteers they did not know but did not feel it was the MRC. Job Action Sheets were on site in some cases, but the staff was not always told that they existed, where to find them, and what kinds of functions were actually needed during a given shift. There was little monitoring of who was coming and going and what they were asked to do. Volunteers shared they actively sought out activities as they were not always given clear direction.

6. **Need for Improved Client Sign In and Out System**- Need improved registration system and adhere to protocols for residents.

7. **Need to Improve Inter and Intra Agency Communication-** Systems between units/state/ARC and ESF 6 & 8 need to be better coordinated. There was a real breakdown on who was making decisions on need for volunteers, DPH's role, ARC's role, community role. Questions on who was in charge of shelter(City/Public Health/Volunteers) There was also an ineffective or no calendar determining when and what type of volunteers were needed. Volunteers reported driving 2 hours to find they were really not needed.

8. **Establish Clear Shifts and Reporting In/Out Protocols**- Need written protocols on how to accept shift replacements including report out from volunteer/staff they are replacing. One volunteer was told that her shift was over at a certain time, only to find the replacement showed up an hour late. This caused the volunteer to miss a scheduled appointment so she could stay on her post to ensure coverage.

9. **Need to identify Adequate Accommodations for those who came to volunteer-** This posed a problem for those who were relieved in evening or late and had to drive 2 hours home. Toward end of event this was trying to be worked on.

10. **Need MORE Shelter Management Trainings Available to Members**- Clearly had need for Shelter Managers but volunteers need training to be able to step into that role.

11. **Need for a Time Sensitive System for Feedback** – It would be helpful to ensure that some standard method of gathering volunteer input was applied, and that comments were reviewed and applied as soon as possible. Some problems could have been addressed far earlier into the process. Rather than leave this up to each individual unit, it would be much better for one central, trusted authority to solicit candid feedback from each participant, even if the answer is, "Things went well."