

Commonwealth of Massachusetts



Northeast Homeland Security Planning Region


Tactical Interoperable Communications Plan


Updated as of 09/13/2022

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TICP SIGNATURE PAGE

Approved by:

| | | | |
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EXECUTIVE OVERVIEW

This document establishes a Tactical Interoperable Communications Plan (TICP) for the Massachusetts Northeast Homeland Security Planning Region. The TICP is intended to document what interoperable communications resources are available within the Northeast Homeland Security Planning Region, which agencies control each resource, and what operational procedures exist for the activation and deactivation of each resource.

The publication of the Massachusetts Northeast Homeland Security Planning Region TICP provides tactical guidance to emergency responders at the regional level as interoperable communications progresses from a local response to a state “Level 3” incident or greater. The policies and procedures set forth in this plan utilize and build upon interoperability standards adopted by the Massachusetts State Interoperability Executive Committee (SIEC) and the Standard Operating Procedures existing within participating agencies.

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PURPOSE

The purpose of the Massachusetts Northeast Homeland Security Region Tactical Interoperable Communications Plan (TICP) is to increase efficiency in establishing interoperable communications during incidents, create a consistent knowledge base of interoperable communications channels and networks, and provide a helpful tool for pre-planning and interoperable communications training and exercises. This document is intended to help alleviate many of the problems or short comings during communications globally:

1. Incident using radio channels in more than one band (Low Band, VHF, UHF, and/or 700/800 MHz, etc.)
2. Incident using different radio bands via console or gateway patches
3. Unable to communicate critical information due to radio congestion
4. Unfamiliar with radio system(s) or assigned radio functionality
5. Instructions and assignments not clear
6. Have no or inadequate communication with your crew members or supervisor
7. Inadequate number of tactical channels available or assigned
8. Multiple conversations on the same talk group or channel

Interoperable Communications Commonalities

The focus of this document is on the available interoperable and mutual aid systems and assets for the Massachusetts Northeast Homeland Security Planning Region.

Agency Responsibilities and Rights

Agencies will retain the following responsibilities and rights:

- Authorized representatives of agencies participating in this plan have the authority to request the use of equipment, including systems and mobile assets, in accordance with Standard Operating Procedures (SOPs).
- Where applicable, agencies will be responsible for consistently maintaining, testing, and exercising connectivity to interoperable communications.
- Incident Commanders retain the right to decide how to utilize interoperable communications.

Prioritization and Shared Use of Regional Interoperability Assets

The Incident Commander, or designee, in conjunction/cooperation with their counterparts in other involved agencies, will have the authority to request the use of interoperable assets. Once Incident Command has been established, Command Staff or the Communications Unit Leader (when designated) will direct the further coordination and delegation of the interoperable communications assets assigned to the event or incident in question.

- Agencies should activate needed interoperable assets to respond effectively and to minimize any negative impact on surrounding agencies or jurisdictions. Specifically, interoperable communications should be established with the following techniques, listed in increasing order of complexity:
 1. Utilize **face-to-face** communications wherever appropriate. For example, the co-location of all Command and General Staff at the Incident Command Post (ICP) provides the best direct communications and reduces the demand on interoperability resources
 2. Employ **local communications** assets until such time as either those assets become taxed or inadequate based on the nature and/or scope of the incident
 3. If response agencies are users of a **shared system**, utilize that shared system to establish interoperable communications
 4. If response agencies operate on disparate systems, utilize **shared or mutual aid channels** to establish interoperable communications.
 5. If response agencies do not share systems or channels, utilize a **gateway** solution to establish interoperable communications
 6. Where interoperable communications cannot otherwise be established between response agencies, utilize **swap or cache radios** to establish operable communications for responders
 7. If no other method of interoperability can be established, relay communications through **staff members**
- When the same resources are requested for two or more incidents, resource assignments should be based on the priority levels listed below:
 1. Disasters, large scale incidents, or extreme emergencies requiring mutual aid or interagency communications.
 2. Incidents where imminent danger exists to life or property.
 3. Incidents requiring the response of multiple agencies.
 4. Pre-planned events requiring mutual aid or interagency communications.
 5. Incidents involving a single agency where supplemental communications are needed for agency use.
 6. Drills, tests and exercises
- In the event of multiple simultaneous incidents within the same priority level, the Incident Commander or Unified Command (if formed) shall have allocation authority and shall allocate resources with the following priorities in mind:
 1. Incidents with the greatest level of exigency (e.g., greater threat to life or property, more immediate need, etc.) have priority over less exigent incidents.

2. Agencies with single/limited interoperable options have priority use of those options over agencies with multiple interoperable options.
- When at all possible, agencies already using an interoperable asset during an event should not be redirected to another resource.

Incident Command System (ICS)

ICS is a key feature of NIMS. It is a widely applicable management system designed to enable effective, efficient incident management by integrating a combination of facilities, equipment, personnel, procedures and communications operating with a common organizational structure. ICS is used to organize on-scene operations for a broad spectrum of incidents/events and guides the process for planning, building and adapting that structure. ICS is based on the command principles of unity of command, chain of command, span of control, delegation of authority and division of labor. The five major functional areas of ICS are command, operations, planning, logistics and finance/administration.

Requests for Communication Assets

1. An agency needing support of a communications asset will contact their local dispatch center or local Emergency Operations Center, if activated. Based on the severity of the incident, a local center may be a first choice in the opinion of the incident commander.
2. The local dispatch center may contact the MEMA State Operations at 508-820-2000 and request to speak with the duty officer. The SEOC will open a mission and start official documentation of the incident
3. The SEOC will contact the closest and most appropriate state or regional asset that can support the request, determine the availability and estimated time of deployment
4. The SEOC will then report the response information back to the designated point of contact and make proper notifications
5. The SEOC will coordinate with the COML to identify an initial communications plan
6. The COML will coordinate with Incident Command for staging of the asset or to determine a reporting location
7. The designated COML will follow established procedures in accordance with the Communications Unit (COMU) including distribution of an Incident Radio Communications Plan (ICS Form 205) and requests to utilize interoperability channels. The ICS 205 will be provided to the Incident Commander and to the SEOC. The Communications Plan will also include phone numbers for incident personnel and other significant locations
8. The communications personnel will rapidly prepare to activate interoperable communications necessary to support on-scene incident personnel
9. Cache radios may be available to issue to incident personnel upon request

10. The communication asset(s) should be prepared to remain on scene staffed by trained communications personnel until released by the Incident Commander or designee

Interoperability Assets

Refer to regional Standard Operating Procedures (SOPs) for policies and procedures on asset usage.

General Best Practices

- **National Incident Management System** – Implement an Incident Command System (ICS) compliant with the National Incident Management System (NIMS) when using any regional interoperability resource.
- **National Response Framework** – Use the appropriate ICS forms needed to document a given incident, in accordance with the National Response Framework (NRF).
- **Plain Language** – Avoid using radio codes, acronyms, and abbreviations as they may cause confusion between agencies. Ensure that all verbal requests for assistance or backup specify the reason for the request.
- **Unit Identification** – Announce your home agency prior to announcing your unit identifier during interoperable communication situations. (e.g., “Command, this is Monson Ambulance A1”)

Applies to Gateways

- **Encryption** – All encrypted radio users must operate in a “clear” mode when a gateway is used, unless otherwise arranged in advance. **Never assume encryption carries across the gateway**
- **Technical Support** – Qualified gateway technical specialists (THSPs) or communications technicians (COMTs) must be available for on-scene support during the deployment of mobile gateways
- **Patching** – Mobile patching should generally be limited to simplex operations. Wide area networks should not be patched unless authorized through local system coordinator(s). Gateway devices should not patch Federal Communication Commission (FCC) frequencies to Military frequencies unless coordinated with the Military Facility Frequency Manager
- **Monitoring** – The Incident Commander, or their designee, will ensure that each activated patch is monitored consistently while in use

Applies to Radio Caches

- **Charging** – Cache radios must be fully charged and ready for immediate deployment when requested. Deployed equipment includes extra batteries and/or battery chargers to support extended deployments
- **Radio Identification** - Each radio in a radio cache will have a unique identification number (e.g. serial number, etc.) for inventory tracking
- **Technical Support** – Qualified radio cache THSPs or COMTs should be available for on-scene support during the deployment, if the requesting agency cannot act in this capacity
- **Equipment Return** – The requesting agency is responsible for the return of any cache radios/MCUs/equipment in the condition that they were issued/received. Responsibilities for lost or damaged equipment lie with the appropriate agency as dictated by existing Memoranda of Agreement(s) (MOAs)

Applies to Mobile Command Units (MCUs)

- **Equipment Return** – The requesting agency is responsible for the return of any MCU in the condition that it was received and/or as dictated by existing Memoranda of Agreement(s)
- **Operational Expenses** – Responsibility for operational expenses should be decided upon ahead of time or within an MOU

1 Massachusetts Northeast Homeland Security Planning Region

1.1 Overview

The Massachusetts Northeast Homeland Security Planning Region contains 85 communities stretching from Ashby in the Northwest to Salisbury on the Northeast coastal border with New Hampshire and Holliston in the Southwest. The region skirts the immediate urban, inner core of metro-Boston but also includes, but not limited to, communities such as Arlington, Malden, Medford, Melrose, Saugus, and Watertown, which are immediately outside of the urban inner core. According to the 2020 US Census, in the Northeast Region there are 2,193,308 people (877,084 households) in 1,310 square miles for an average population density of 1,674 people per square mile.¹

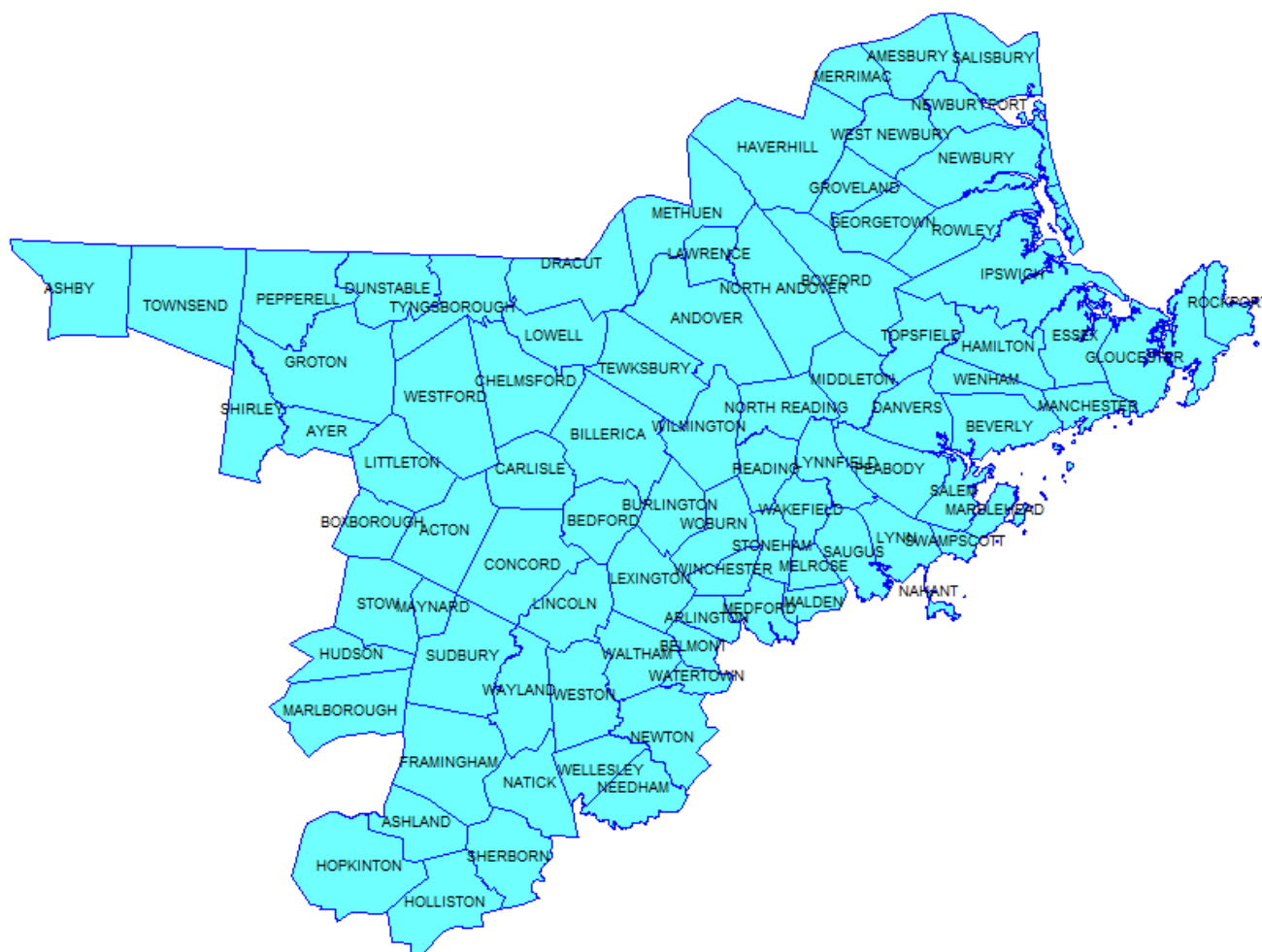


Figure 1: Massachusetts Northeast Homeland Security Planning Region

¹ Metropolitan Area Planning Council (2021). U.S. Decennial Census Redistricting Data: Massachusetts Population and Housing Unit Changes (Municipal) 2010-2020. Retrieved from <<https://datacommon.mapc.org/browser/datasets/425>>.

1.2 Cities and Towns Included in the Northeast Region

The cities and towns located in the Massachusetts Northeast Homeland Security Planning Region that are represented in this TICP include:

| | | | | |
|-----------------------|------------|-------------|--------------|------------|
| Acton | Amesbury | Andover | Arlington | Ashby |
| Ashland | Ayer | Bedford | Belmont | Beverly |
| Billerica | Boxboro | Boxford | Burlington | Carlisle |
| Chelmsford | Concord | Danvers | Dracut | Dunstable |
| Essex | Framingham | Georgetown | Gloucester | Groton |
| Groveland | Hamilton | Haverhill | Holliston | Hopkinton |
| Hudson | Ipswich | Lawrence | Lexington | Lincoln |
| Littleton | Lowell | Lynn | Lynnfield | Malden |
| Manchester-by-the-Sea | Marblehead | Marlborough | Maynard | Medford |
| Melrose | Merrimac | Methuen | Middleton | Nahant |
| Natick | Newbury | Newburyport | Newton | N. Andover |
| N. Reading | Peabody | Pepperell | Reading | Rockport |
| Rowley | Salem | Salisbury | Saugus | Sherborn |
| Shirley | Stoneham | Stow | Sudbury | Swampscott |
| Tewksbury | Topsfield | Townsend | Tyngsborough | Wakefield |
| Waltham | Watertown | Wayland | Wenham | W. Newbury |
| Westford | Weston | Wilmington | Winchester | Woburn |

Table 1: TICP Agencies

| Jurisdiction | Police | Fire | EMS | EMA | PW/DOT |
|-------------------------|--------|------|-------------------------------------|-----|--------|
| ESSEX COUNTY | | | | | |
| Amesbury | X | X | Fire Department | ALS | X |
| Andover | X | X | Fire Department | BLS | X |
| Beverly | X | X | Northeast Regional Ambulance | ALS | X |
| Boxford (East District) | X | X | Atlantic Ambulance | ALS | X |
| Boxford (West District) | X | X | Trinity EMS | ALS | X |
| Danvers | X | X | Atlantic Ambulance | ALS | X |
| Essex | X | X | Fire Department | BLS | X |
| Georgetown | X | X | Fire Department | BLS | X |
| Gloucester | X | X | Fire Department | ALS | X |
| Groveland | X | X | Trinity EMS | ALS | X |
| Hamilton | X | X | Beauport Ambulance | ALS | X |
| Haverhill | X | X | Trinity EMS | ALS | X |
| Ipswich | X | X | Action Ambulance | ALS | X |
| Lawrence | X | X | Lawrence General Hospital Ambulance | ALS | X |
| Lynn | X | X | Atlantic Ambulance | ALS | X |
| Lynnfield | X | X | Fire Department | ALS | X |
| Manchester-by-the-Sea | X | X | Fire Department | ALS | X |
| Marblehead | X | X | Atlantic Ambulance | ALS | X |
| Merrimac | X | X | Fire Department | ALS | X |
| Methuen | X | X | Fire Department | BLS | X |
| Middleton | X | X | Fire Department | ALS | X |
| Nahant | X | X | Fire Department | BLS | X |
| Newbury | X | X | Fire Department | ALS | X |
| Newburyport | X | X | Atlantic Ambulance | ALS | X |
| North Andover | X | X | Fire Department | BLS | X |
| Peabody | X | X | Atlantic Ambulance | ALS | X |
| Rockport | X | X | Fire Department | BLS | X |
| Rowley | X | X | Action Ambulance | ALS | X |
| Salem | X | X | Atlantic Ambulance | ALS | X |
| Salisbury | X | X | Atlantic Ambulance | ALS | X |
| Saugus | X | X | Armstrong Ambulance | ALS | X |
| Swampscott | X | X | Atlantic Ambulance | ALS | X |
| Topsfield | X | X | Fire Department | ALS | X |
| Wenham | X | X | Fire Department | BLS | X |
| West Newbury | X | X | Atlantic Ambulance | ALS | X |
| MIDDLESEX COUNTY | | | | | |
| Acton | X | X | Fire Department | ALS | X |
| Arlington | X | X | Fire Department | BLS | X |
| Ashby | X | X | Fire Department | BLS | X |
| Ashland | X | X | Fire Department | ALS | X |
| Ayer | X | X | Fire Department | ALS | X |
| Bedford | X | X | Fire Department | ALS | X |
| Belmont | X | X | Fire Department | ALS | X |
| Billerica | X | X | Police Department | ALS | X |
| Boxborough | X | X | Fire Department | BLS | X |
| Burlington | X | X | Fire Department | ALS | X |

| Jurisdiction | Police | Fire | EMS | | EMA | PW/DOT |
|---------------|--------|------|-------------------------|-----|-----|--------|
| Carlisle | X | X | Fire Department | BLS | X | X |
| Chelmsford | X | X | Trinity EMS | ALS | X | X |
| Concord | X | X | Fire Department | BLS | X | X |
| Dracut | X | X | Trinity EMS | BLS | X | X |
| Dunstable | X | X | Trinity EMS | ALS | X | X |
| Framingham | X | X | Brewster Ambulance | ALS | X | X |
| Groton | X | X | Fire Department | BLS | X | X |
| Holliston | X | X | Fire Department | BLS | X | X |
| Hopkinton | X | X | Fire Department | ALS | X | X |
| Hudson | X | X | Patriot Ambulance | ALS | X | X |
| Lexington | X | X | Fire Department | ALS | X | X |
| Lincoln | X | X | Fire Department | BLS | X | X |
| Littleton | X | X | Fire Department | ALS | X | X |
| Lowell | X | X | Trinity EMS | ALS | X | X |
| Malden | X | X | Cataldo Ambulance | ALS | X | X |
| Marlborough | X | X | Patriot Ambulance | ALS | X | X |
| Maynard | X | X | Fire Department | BLS | X | X |
| Medford | X | X | Armstrong Ambulance | ALS | X | X |
| Melrose | X | X | Melrose Fire Department | ALS | X | X |
| Natick | X | X | Fire Department | ALS | X | X |
| Newton | X | X | Transformative EMS | ALS | X | X |
| North Reading | X | X | Fire Department | ALS | X | X |
| Pepperell | X | X | Fire Department | ALS | X | X |
| Reading | X | X | Fire Department | ALS | X | X |
| Sherborn | X | X | Fire Department | BLS | X | X |
| Shirley | X | X | Fire Department | BLS | X | X |
| Stoneham | X | X | Cataldo Ambulance | ALS | X | X |
| Stow | X | X | Fire Department | BLS | X | X |
| Sudbury | X | X | Fire Department | ALS | X | X |
| Tewksbury | X | X | Fire Department | BLS | X | X |
| Townsend | X | X | Fire Department | ALS | X | X |
| Tyngsborough | X | X | Fire Department | BLS | X | X |
| Wakefield | X | X | Cataldo Ambulance | ALS | X | X |
| Waltham | X | X | Armstrong Ambulance | ALS | X | X |
| Watertown | X | X | Fire Department | ALS | X | X |
| Wayland | X | X | Fire Department | ALS | X | X |
| Westford | X | X | Fire Department | ALS | X | X |
| Weston | X | X | Fire Department | BLS | X | X |
| Wilmington | X | X | Fire Department | BLS | X | X |
| Winchester | X | X | Fire Department | ALS | X | X |
| Woburn | X | X | Fire Department | BLS | X | X |

1.3 Points of Contact

The primary and alternate points of contact (POC) for copies of or questions regarding this Plan are:

Primary

| | |
|---------------|--|
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Secondary

| | |
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| POC Name: | Richard Fiske |
| Title: | Massachusetts Statewide Interoperability Coordinator |
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| Office Phone: | 617-620-3607 |
| E-Mail: | Richard.Fiske@mass.gov |

2 Governance Structure

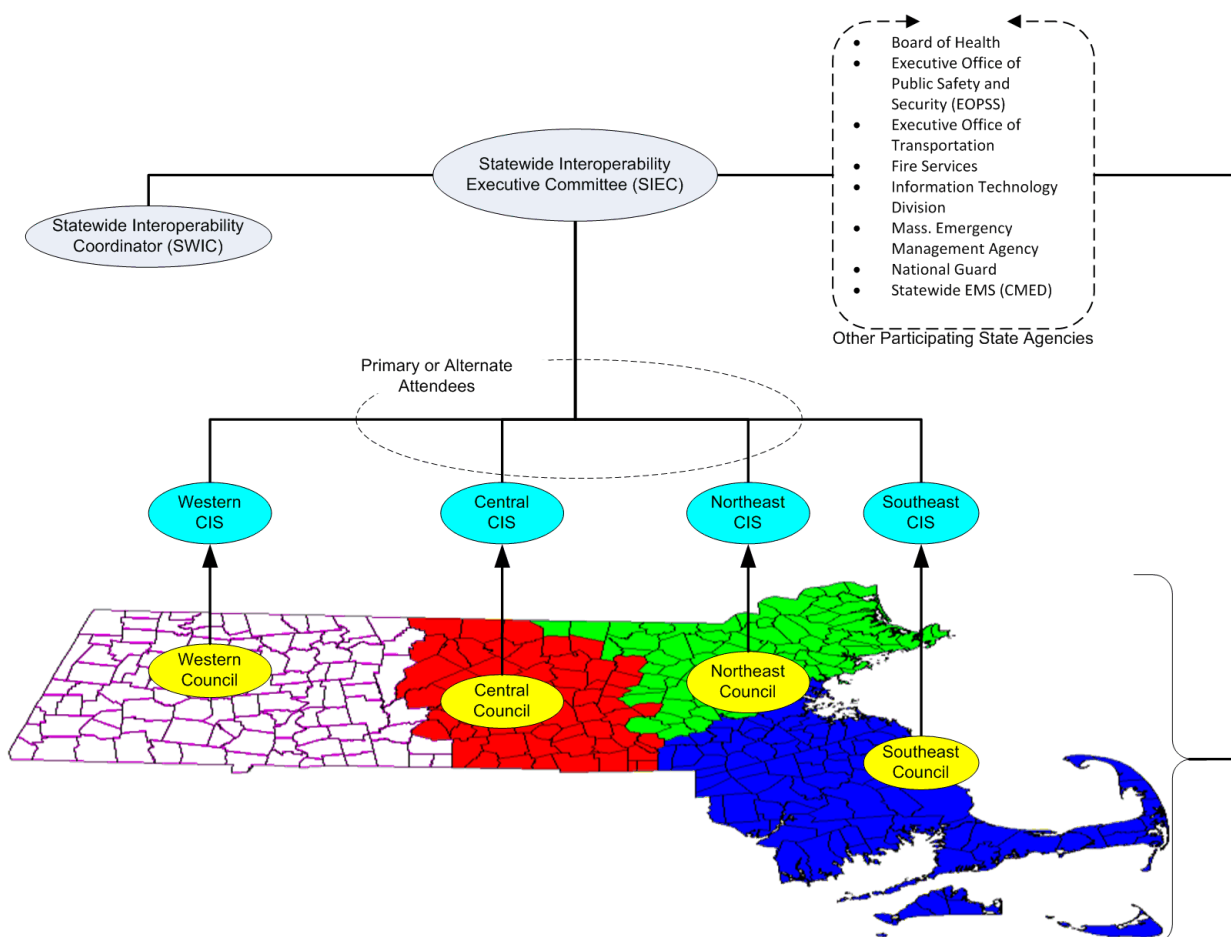


Figure 2: Massachusetts Homeland Security Planning Regions

2.1 Overview

Interoperability efforts in Massachusetts are led by the Executive Office of Public Safety and Security, a participating State agency of the State Interoperability Executive Committee (SIEC). The Commonwealth of Massachusetts is divided into five homeland security planning regions, each of which has a Communications Interoperability Committee that meets to determine the needs of its area in accordance with guidelines established at the State level and any specific regional needs. Interoperable communications in the Massachusetts Northeast Homeland Security Region are coordinated by the Interoperability Committee of the Northeast Homeland Security Regional Advisory Council (NERAC). (www.NERAC.us)

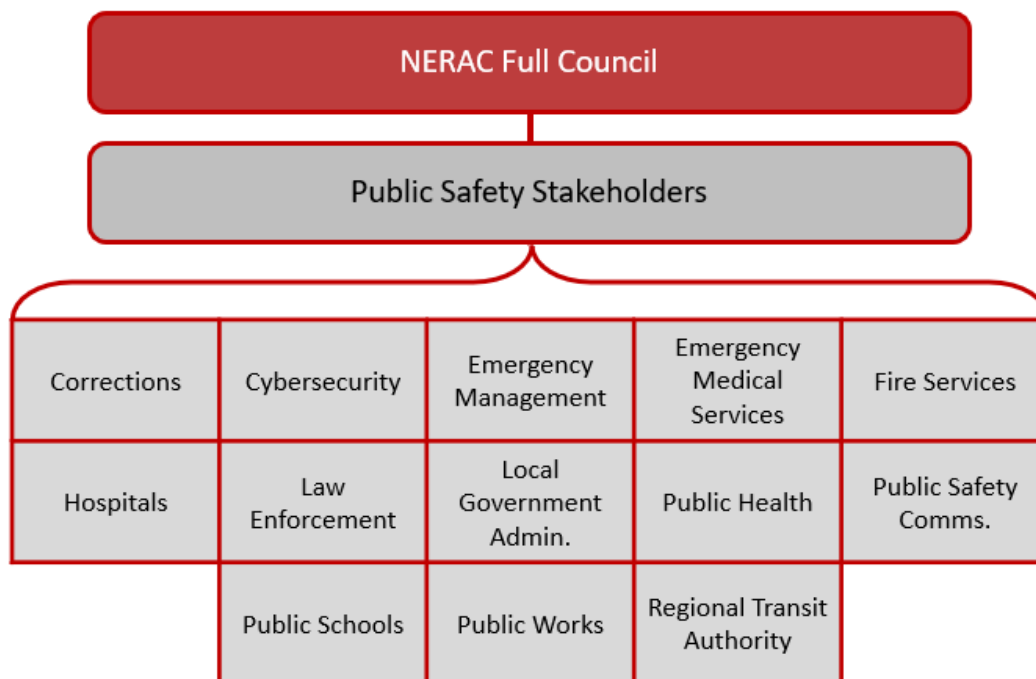


Figure 3: NERAC Public Safety Stakeholders

Table 2: NERAC Interoperability Committee

| Agency | Name | Position |
|-----------------------------------|----------------------------|---|
| North Shore Regional 911 Center | Christopher Ryan, Chair | Deputy Director |
| Dracut Fire Department | Rich Patterson, Vice-Chair | Chief |
| Essex County Sheriff's Department | Dave Spinosa | Assistant Superintendent / Director of Communications |
| Beverly Emergency Management | Mark Foster | Director |
| Northeast EMS, Inc. | Jon Brickett | Executive Director |
| Metrofire Inc. | David Frizzell | Executive Director |
| City of Beverly | Mike Collins | Commissioner of Public Services & Engineering |
| Middleton Fire Department | Tyler Dechene | Lieutenant |
| Greater Boston Police Council | Joe Griffin | Director of Operations |
| Andover Fire Rescue | Michael Mansfield | Chief |
| Westford Fire Department | Joseph Targ | Chief |
| Ashland Fire Department | Michael Torosian | Fire District 14 Communications Specialist |
| Fire District 14 | Brian Roberts | Communications Manager |
| Greater Boston Police Council | Charlie Dunne | Engineer |

2.2 Responsibilities

- Providing a venue for local public safety agencies to offer recommendations and concerns.
- Providing recommendations for best practices in interoperable communications.
- Documenting and/or executing any Memoranda of Understanding (MOU's) or other Sharing Agreements for interoperable communications.
- Facilitating interoperable communications by providing a forum for the identification and dissemination of best practices for interoperability.
- Re-evaluating regional requirements as technology evolves and circumstances dictate, making recommendations for changes in interoperability procedures and/or equipment.
- Maintaining and updating the TICP.
- Exercising the TICP.
- Adopting solutions and directing implementation in the coordination of public safety communications.
- Establishing training recommendations in support of the TICP.
- Notifying agencies of regular interoperable equipment/solutions testing and assisting with test evaluation and the dissemination of results.

2.3 Meeting Schedule

NERAC meetings are held monthly in accordance with the Bylaws of the organization.

2.4 Entity Responsibilities and Rights

Participating agency rights and responsibilities are identified in the policies established by NERAC.

2.5 Maintenance of TICP

- The NERAC Interoperability Committee, in coordination with the Statewide Interoperability Coordinator (SWIC) and Security shall have the responsibility of reviewing and updating the TICP annually.
- The Plan is to be updated in response to changes in interoperability equipment or resources and upon recommendations from incident and exercise after-action reports.
- Requests for modifications/additions to the Plan should be submitted to the NERAC Interoperability Committee.
- Formal notification (email message) to participating agencies of any modifications or additions to the TICP shall be made in writing no later than 30 days after the modification or addition is made.

2.6 TICP Version Control

- The NERAC Interoperability Committee shall be responsible for the maintenance and distribution of the latest version of the TICP document, and shall maintain a valid working copy of the TICP on the NERAC website (www.NERAC.us).
- Any changes made to the TICP prior to the next scheduled TICP version update shall be incorporated into the existing TICP as an addendum and any such addendum shall be posted on the NERAC website.
- The NERAC Interoperability Committee shall update the TICP once annually, and will solicit feedback prior to doing so. All addenda that have been made since the last version will be incorporated into the annual update, and the corresponding addenda shall be removed from the Internet portal site.
- The TICP document posted on the NERAC website shall supersede all other versions.

3 Regional Communications Infrastructure

The communications infrastructure utilized in the region for everyday communications is highly diverse. Within the Region, the most prevalent networks are based in the 800 MHz and Ultra High Frequency (UHF) bands. A considerable number of Very High Frequency (VHF) networks remain in place today despite the difficulties presented by narrow-banding. Such VHF networks are typically local agency specific; however, a few are county-wide. Throughout the region, emergency communications are managed by local agencies with additional infrastructure support from the Region, various State and local agencies. Voice communication networks are present in all areas of the Region; however, data communication is not.

While the various communications centers have been somewhat successful in finding solutions to manage network diversity, such an assortment in systems does offer considerable challenges when the need for county-to-county or agency-to-agency interoperability is required.

3.1 Shared Systems

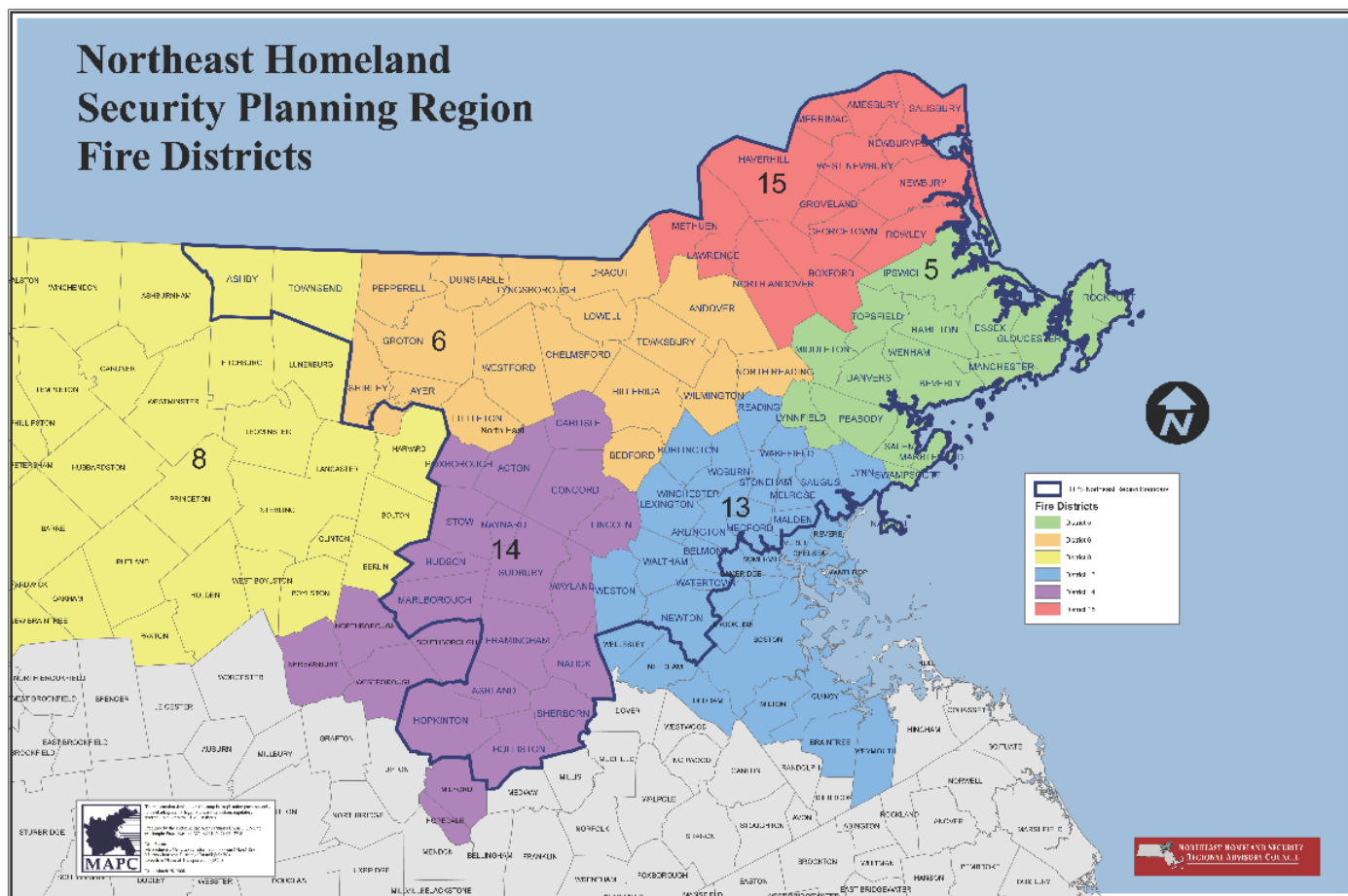
“Shared system” refers to a single radio system used to provide service to several public safety and/or public service agencies. The table below displays the different shared systems used by public safety agencies in the Massachusetts Northeast Homeland Security Region.

Table 3: Shared Systems

| Shared System Name | Service Area | Radio System |
|--------------------------|---|--|
| BAPERN UHF | BAPERN Service Area | UHF Conventional, Repeated |
| CMED VHF | Statewide | VHF Conventional, Simplex |
| CMED UHF | Statewide | Analog Conventional ½ Duplex |
| DCR VHF | Statewide | VHF Conventional, Repeated and Simplex |
| EMS Shared UHF | Statewide | UHF Conventional, Repeated |
| Fire District 5 VHF | Fire District 5 | VHF Conventional, Repeated and Simplex |
| Fire District 5 UHF | Fire District 5 | UHF Conventional, Repeated and Simplex |
| Fire District 6 UHF | Fire District 6 | UHF Conventional, Repeated and Simplex |
| Fire District 8 VHF-Low | Fire District 8 Mid-State Northern Worcester Co | VHF-Low Conventional, Simplex |
| Fire District 8 UHF | Fire District 8 Mid-State Northern Worcester Co | UHF Conventional, Simplex |
| Metrofire 13 UHF | Fire District 13 | UHF Conventional, Repeated and Simplex |
| Fire District 14 VHF-Low | Fire District 14 | VHF-Low Conventional, Simplex |
| Fire District 14 UHF | Fire District 14 | UHF Conventional, Repeated and Simplex |

| Shared System Name | Service Area | Radio System |
|----------------------|------------------|--|
| Fire District 15VHF | Fire District 15 | VHF Conventional, Repeated and Simplex |
| Fire District 15 UHF | Fire District 15 | UHF Conventional, Repeated and Simplex |
| MEMA VHF | Statewide | VHF Conventional, Repeated and Simplex |
| MEMA TRS | Statewide | Statewide 700/800 MHz TRS |
| MSP 7/800 | Statewide | 700/800 MHz Conventional, Repeated and Simplex |
| MSP TRS | Statewide | Statewide 700/800 MHz TRS |

Figure 4: Northeast Homeland Security Planning Region Fire Districts



BAPERN District Map

District Legend

- Non-Members
- Central
- North
- Northwest
- South
- Southeast
- Southwest
- West

The map shows the following towns and cities within the BAPERN District:

- North:** Amesbury, Merrimac, Salisbury, Newburyport, Haverhill, West Newbury, Newbury, Groveland, Georgetown, Rowley, Ipswich, Topsfield, Hamilton, Gloucester, Rockport, Essex, Manchester, Beverly, Danvers, Lynn, Salem, Marblehead, Swampscott, Lynn, Melrose, Woburn, Wakefield, Saugus, Lynn, Peabody, Reading, North Reading, Wilmington, Billerica, Concord, Acton, Littleton, Ayer, Harvard, Shirley, Lunenburg, Townsend, Pepperell, Tyngsboro, Groton, Westford, Chelmsford, Tewksbury, Lowell, Andover, Methuen, Lawrence, North Andover, Boxford, Middlesex, and Wrentham.
- Northwest:** Dunstable, Tyngsboro, Groton, Westford, Chelmsford, Tewksbury, Lowell, Andover, Methuen, Lawrence, North Andover, Boxford, Middlesex, and Wrentham.
- Central:** Lexington, Arlington, Medford, Malden, Everett, Chelsea, Boston, Cambridge, Somerville, Dorchester, Mattapa, and Weymouth.
- South:** Cohasset, Scituate, Norwell, Hingham, Duxbury, and Marshfield.
- Southeast:** Brockton, Whitman, Hanson, East Bridgewater, West Bridgewater, Bridgewater, Halifax, Kingston, Plympton, Plymouth, Carver, Wareham, Marion, Mattapa, Fairhaven, and New Bedford.
- Southwest:** Attleboro, Norton, Seekonk, Rehoboth, Taunton, Raynham, Berkley, Dighton, Swansea, Somerset, Fall River, and Westport.
- West:** Framingham, Southborough, Needham, Westwood, Dedham, Norwood, Canton, Milton, Quincy, Braintree, Weymouth, Randolph, Stoughton, Abington, and Norwell.
- Non-Members:** Towns outside the BAPERN District, including Andover, Methuen, Lawrence, North Andover, Boxford, Middlesex, and Wrentham.

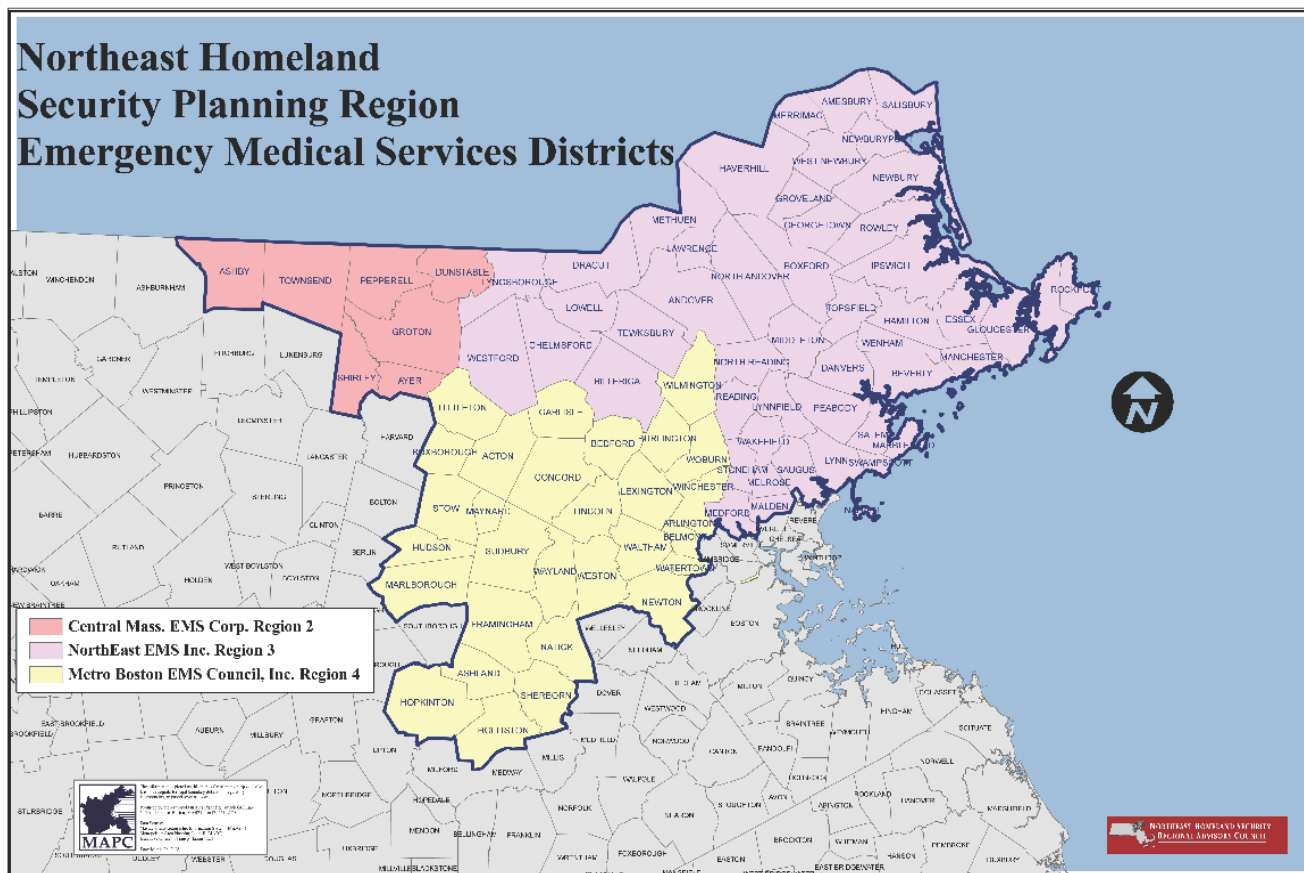


Figure 6: Northeast Homeland Security Planning Region Emergency Medical Service Districts

3.2 Shared Channels

Shared Channels exist at the regional, State and National level. This Section describes Intra-system Regional and State Shared Channels, Inter-system Regional and State Shared Channels and the National Shared Channels, also known as the “NPSTC Channels” (National Public Safety Telecommunications Council).

Inter-system “shared channels” refer to common frequencies/talkgroups established and programmed into radios to provide interoperable communications among agencies using **different** radio systems. “Channel,” in this context, refers to the name of a common frequency/talkgroup visually displayed on a user’s radio.

Inter-system shared channels are reserved for situations that require interoperable communications to coordinate multiple public safety entities and/or activities across two or more separate radio systems. The following best practices apply to these channels:

- **NIMS** – Use an Incident Command System (ICS) compliant with the NIMS when using any regional interoperability resource.

- Agencies should complete an After Action Report/Improvement Plan after any incident or exercise.
- **Plain Language/text** – All interoperable communications during multi-agency, multi-discipline incidents will be in plain language/text. Avoid using radio codes, acronyms, and abbreviations as they may cause confusion between agencies. Ensure that all verbal requests for assistance or backup specify the reason for the request.
- **Unit Identification** – Announce your home agency prior to announcing your unit identifier during interoperable communication situations.

3.2.1 TAC-Stack

The Commonwealth of Massachusetts has established a statewide interoperability system using the non-federal interoperability channels. The TAC-Stack system uses a series of repeaters and gateways throughout the state to provide public safety agencies with the ability to communicate with each other, regardless of their local communications capabilities.

Use the following procedures when requesting, using, or discontinuing the use of shared channels:

- **Step 1** – Once it is identified that interoperability is needed, the incident commander or designee will contact the MEMA Central Dispatch using any of the following methods:
 - **Massachusetts State Police Operations: (Primary contact for in-place TAC-Stacks)**
 - Contact via radio using
 - LPS-1
 - Or by telephone at (508) 820-2121
 - NAWAS Phone (Direct)
 - **MEMA Operations Center:**
 - Contact by telephone at (508) 820-2000
 - Or via radio using
 - MEMA VHF
 - MEMA 800
 - NAWAS Phone (Direct)
- **Step 2** – The caller will need to follow the procedure below:
 - Identify his or her title, name, agency and callback number.
 - Describe the communication needs (e.g., “We need a UTAC42 repeater enabled;” “We need an 8TAC92 repeater interconnected to a UTAC43 repeater.”)
- **Step 3** – Once the incident is completed, contact the Primary or Secondary Contact as listed above and request the termination of the incident interoperability resources.

To address a problem using a shared channel during an incident, notify the Communications Technician (COMT) or COML/designee assigned to the incident/event, who will follow established agency procedures to resolve the problem.

- Report any shared problems with the equipment to the appropriate POC for the owning agency. The POC will be responsible for ensuring effective resolution to problems that exist with the inter-system shared channel.

- Report any unresolved problems with that system to the designated NERAC point of contact.
- Ensure issues or problems are included in the After Action Report (AAR).

3.2.2 Northeast Region Shared Channels

Interoperable Communication for Type 5 (local) and Type 4 (Multi-local/regional) incidents and events generally start by using regional shared channels or discipline oriented interoperability channels and progress if necessary to statewide shared channels. Local entities may also use the NPSTC channels at any level incident should the need arise. Massachusetts Northeast Homeland Security Planning Region Shared Channels are listed in **C.1 Regional Shared Channels**.

3.2.3 Non-Federal Interoperability Shared Channels

The FCC has designated multi-discipline interoperability channels in the VHF, UHF, 700 MHz and 800 MHz public safety radio bands. The term “multi-discipline” infers these channels are to be accessible for all public safety users to communicate to others within their discipline (e.g., police-to-police, fire-to-fire), as well as cross discipline communications (e.g., police-to-fire, fire-to-local government). Although these channels are used in the TAC-Stack System in Massachusetts, they may also be used on an as-needed basis by public safety agencies. See **C.2 Non-Federal Interoperability Channels** for a listing of NPSTC Shared Channels.

Based on FCC regulations, local governmental agencies that have a valid Part 90 license may install NPSTC frequencies in existing mobile and portable radios. When responding to an emergency where the need for interoperability is demonstrated, responders may use one or more of the available frequencies as warranted by the incident in accordance with the Operating Policy. The responsibility for management and assignment of available frequencies rests with the COML and/or its designee. See **Requests for Communication Assets** for further guidance.

4 Interoperability Assets

SAFECOM defines communications interoperability as the ability of public safety agencies to talk across disciplines and jurisdictions via radio communications systems, exchanging voice and/or data with one another on demand, in real time, when needed, and as authorized. All interoperable equipment in the Northeast Region are listed in the following sections.

4.1 Gateways

Gateway systems interconnect channels of different systems (whether on different bands or modes), allowing first responders to use their existing radios and channels to interconnect with the channels of other users outside of their agency.

A list of all available fixed and portable gateways can be found in **Appendix D Gateways**. Nearly all local dispatch centers in the Northeast Region have console patch equipment providing for the ability to act as a fixed gateway between radio channels operated by that center.

4.1.1 Recommended Attributes for Gateways

For a gateway to be an effective shared resource, it should have the following characteristics:

- Ready for deployment at all times.
- Personnel available to transport a mobile/portable gateway to the incident scene OR configure a fixed gateway upon request.
- Available personnel for support while the gateway is active.
- Mobile/portable gateways should be labeled with the owning agency identification
- Each gateway shall have a designated manager.
- Check-out and tracking procedures are used during the incident to ensure the mobile/portable gateways are properly returned.
- Identifier equipped gateways used to connect one or more shared channels listed in the TICP must be operated with the identifier enabled.

4.1.2 Best Practices

- **Encryption** – Unless otherwise arranged in advance, encryption shall NOT be used on channels patched via a gateway. All encrypted radio users must operate in a “clear” mode when a gateway is used. *Never assume encryption carries across the gateway.*
- **Monitoring** – The Incident Commander, or designee, will ensure that each activated channel connected through a gateway is constantly monitored while in use.
- **Gateway** – The Incident Commander, or designee, will ensure that each activated interoperability gateway is constantly attended while in use.

4.1.3 Gateway Communications Request

The COML and/or Incident Commander must be aware that activating multiple gateways to support an incident can result in mutual interference. Interference issues are best resolved by the technical support team assigned to the gateways. It is vital to coordinate the use of gateways between agencies.

The agency requesting the use of a fixed or mobile gateway device for incident/event communications support should document and provide the following information to the owning gateway agency POC:

- Requesting agency, name, and call-back number.
- On-scene agencies requiring interoperability.
- Incident/event type (e.g., severe flooding, riot).
- Equipment required.
- Expected duration of event.
- Location required/access information.
- Incident POC and call-back number.
- User/requestor and/or servicing dispatch contact phone number.
- Additional support services requested (e.g., gateway operator, generator).
- Communications channels being considered for patching.
- Make and models of radios to be patched to determine what cables will be needed.
- Number of users to be involved in the patch.

4.1.4 Gateway Activation

Once the owning agency grants authorization to use their gateway, the procedures for establishing communications connectivity are:

- Select a channel or talkgroup on the home system for use in the gateway patch.
- Verify the system-wide availability of required resources (coordinate among control point dispatchers/ COML).
- Provide radio call sign/designator information to connected agencies as needed.
- Assign the requested unit/agency to that channel or talkgroup.
- Connect the agency to the appropriate channel or talkgroup.
- Announce to users that the interoperability gateway has been activated.
- Perform a roll call of units upon establishment of the interoperability gateway to verify proper operation.
- Monitor the interoperability channel to address requests.

4.1.5 Gateway Deactivation

When the gateway connection(s) is (are) no longer required, agencies should follow these deactivation procedures:

- The COML or Incident Commander (or designee) shall contact the gateway attendant to request patch/gateway deactivation.
- Prior to the connection being disabled, the gateway attendant shall announce over all patched channels/talkgroups that connections will be deactivated.
- All personnel will return to their appropriate system channel assignments.

Each agency owning or operating a gateway should have a written procedure for documenting the receipt of a request, and for activation and deactivation of a gateway patch.

4.1.6 Gateway Limitations

Interoperability provided through a gateway can connect participating agency responders, but are subject to the following limitations:

- The number of simultaneous patches supported by any given gateway is limited. (See Number of Simultaneous Nets in the associated table.)
- Home system coverage may limit communications. Gateway users must be within the footprint of the system's coverage area.
- Agencies not permanently configured on a given gateway will require additional planning to establish interoperable communications through that gateway.
- Patches or gateways into a radio system can cause adverse loading effects on the entire system.
- Inappropriate patches can cause interference and/or feedback loops.
- Gateways may not fully support encrypted communications
- Multiple gateways to the same channel in the same coverage area are prohibited unless authorized by the COML.

4.1.7 Gateway Test Procedures

To ensure that equipment components of the gateway operate properly, each agency will participate in the following testing procedure:

- Testing should include deployment (mobile only), setup, operation, and deactivation of each gateway. Representatives from multiple agencies should work together to test various channels in each gateway on a regular basis.
- If an issue or problem is identified during the testing procedure, the COML and/or its designee is responsible for taking corrective action.
- In addition to gateway testing, periodic testing of commonly requested patch channels is recommended.

4.2 Radio Caches

Cache radios, also known as “swap radios,” refer to the establishment of a reserve of standby radios that can be deployed to support interoperable communications during an incident. Cache radios allow all responders to use common, compatible equipment during an incident. Specific radio caches within the Massachusetts Northeast Homeland Security Region are listed in detail in the attached **Appendix E / Table 29 Radio Caches**.

4.2.1 Recommended Attributes for Radio Caches

For a radio cache to be an effective shared resource, it should have the following characteristics:

- Be fully charged and maintained, ready for deployment at all times.
- Include extra charged batteries/replacement batteries and chargers for extended deployments.
- Personnel available to transport the radios to the incident scene or designated area.
- Available support personnel for on-scene support during the deployment.
- Radios and batteries should be labeled with the owning agency identification.
- Designated radio cache manager for each radio cache.
- Established check-out and tracking procedures for use during the incident to ensure the radios are properly returned to the cache following the incident.

4.2.2 Cache Request

Use the following procedures when requesting, using, or discontinuing the use of shared channels:

- The Incident Commander, or their designee, determines when a situation exists that requires the use of a statewide or regional radio cache and notifies the appropriate dispatch center.
- The dispatch center will follow internal agency procedures to contact the COML or Radio Cache Agency POC and relay pertinent information regarding the event.
- The requesting agency documents and provides the following information to the Radio Cache Agency POC:
 - Requesting agency.
 - On-scene agencies requiring interoperability.
 - Incident/event type of event (e.g., wild land fire).
 - Equipment requirements including operating radio band requested.

- Expected duration of event.
- Location required/access information.
- Incident POC and call back number.
- User/requestor and/or servicing dispatch contact phone number.
- Additional support services requested (e.g., technician, chargers).

The owning/managing agency of the radio cache determines what radio caches are available for use, identifies a specific cache, activates that cache, and coordinates the cache deployment with the requesting agency Incident POC.

4.2.3 Cache Activation

Upon receiving a request for the deployment of a radio cache, the owning agency **dispatcher** should follow these deployment procedures:

- Contact the on-call radio technician or person responsible for radio cache deployment.
- Dispatch the radio cache technician (or an approved designee) to the incident scene.
- Inform the requesting agency that the radio cache is en route and provide an estimated time of arrival (ETA), if available.

The **radio cache technician (or designee)** should follow these deployment procedures:

- Provide dispatch with an ETA at the incident.
- Retrieve the radio cache from its storage location and deliver it to the incident scene.
- Report to the Incident Commander or Check-in on arrival.
- Once on-scene, sign the cache over to the requesting agency for incident use or, if assigned to remain on scene, coordinate radio cache deployment procedures with the Communications Unit.
- Each radio within the radio cache will have a unique identification number for inventory tracking. Ask the receiving agency to sign a property transfer form if they take responsibility for managing the radio cache on scene.
- The requesting Agency/Incident Commander/COML will be responsible for:
 - Supporting radio deployments on-scene.
 - Maintaining a record of each user and agency to whom a radio and associated accessories have been distributed.
 - Documenting the identification number of each radio deployed.

4.2.4 Cache Deactivation

When the radio cache is no longer required, agencies should follow these deactivation procedures:

- Coordinate the return of all cache radios to the Communications Unit through the Incident Commander or the COML.
- The Communications Unit will be responsible for inventorying all radios and accessories returned to the cache. Before leaving the incident scene, the Communications Unit will determine if any radios have not been returned to the radio cache and note the user and agency to which the radio was distributed. If the radios and/or accessories are returned in a damaged condition, they will provide this information to the Incident Commander or the COML.
- The Communications Unit will provide information on missing or damaged radios to the Radio Cache Agency POC for resolution.
- Each user and/or agency that receives a radio from the radio cache will be accountable for returning that radio and all associated accessories to the cache at the end of the incident. The receiving agency is responsible for returning the equipment in the same condition as received.

4.3 Mobile Communications Units (MCU)

An MCU, a Mobile Communications Center (MCC), or Mobile Emergency Operations Center (MEOC), refers to any vehicular asset that can be deployed to provide or supplement communications capabilities in an incident area. Examples of the types of communications devices an MCU can house are: subscriber and base station radios of various frequency bands, gateway devices, satellite phones, wireless computer networks, and video broadcasting/receiving equipment. Typically these communications devices are permanently stored in the MCUs when not in use. The MCU should also be able to temporarily provide the electrical power required to operate the communications devices.

4.3.1 MCU Request

The Incident Commander, or their designee, determines when a situation requires the use of an MCU and notifies the appropriate dispatch center. The dispatch center will follow internal agency procedures to contact the COML or MCU POC and relay pertinent information regarding the event. The requesting agency documents and provides the following information to the MCU POC, on request:

- Requesting agency
- Agencies requiring interoperability
- Incident/event type (e.g., wild land fire)
- Expected duration of event
- Location required/access information
- Incident POC

- User/requestor and/or servicing dispatch contact phone number
- Additional support services requested
- The MCU Agency determines if the MCU is available for use and coordinates the deployment with the requesting agency Incident Commander or their designee.
- A list of the MCU's available in the region is provided in **Appendix F Mobile Communications Units** which lists the agencies supported and detailed information for all MCU's available for use within the MA Northeast Homeland Security Region.

4.4 Emergency Communications Restoration Vehicle (ERV)

4.4.1 ERV Capability

The Massachusetts State Police maintain and operate an Emergency Communications Restoration Vehicle (ERV) that is capable of restoring basic communications when terrestrial communications is non-existent, or severely compromised. The ERV consists of a truck and trailer combination. A summary of ERV equipment is listed in the following table:

Table 4: ERV Equipment

| Qty | Special Equipment | Freq Band |
|-------|---|-------------|
| m2 | Base Station - 100W | VHF |
| 4 | Repeater - 100W | UHF |
| 2 | Repeater - 100W | 800 MHz |
| 1 | Trunked radio site - 4 channel 100W | 800 MHz |
| 2 ea. | Duplexer (453-460-472-482 MHz) | UHF |
| 2 | Duplexer | 800 MHz |
| 1 | Combiner/Multicoupler | 800 MHz |
| 4 | Antenna | VHF |
| 6 | Antenna | UHF |
| 2 | Antenna | 800 MHz |
| 3 | Radio control station | VHF-Low |
| 4 | Dual band APX consolette | 800 MHz/VHF |
| 4 | Dual band APX consolette | 800 MHz/UHF |
| 1 | Microwave PTP link - ERV to remote location | 4.9 GHz |
| 1 | Microwave PTP link - ERV trailer to remote location | 4.9 GHz |
| 1 | 8 Port Motobridge Gateway and dispatch terminal | |
| 1 | General Dynamics service monitor with conventional, trunking and P25 capabilities | |
| 1 | 42' Mast – ERV | |
| 1 | 100' Tower - ERV trailer | |
| 1 | 20 kW generator - ERV | |
| 1 | 15 kW generator - ERV trailer | |
| 1 | Equipment shelter with 24,000 BTU HVAC System | |

4.4.2 ERV Pre-Positioned Location

The ERV is pre-positioned at the Massachusetts State Police General Headquarters (GHQ) in Framingham, MA. Should there be a prediction of impending natural disasters the ERV asset may be re-positioned in advance of an event (hurricane, flood, etc.) as determined by MEMA officials in coordination with the MSP.

4.4.3 ERV Deployment Request

All of the STR assets are statewide resources, and as such would be requested during a major event through the normal chain of command. The Incident Commander or Communications Unit Leader would make the initial request for the resource to the Operations Officer at the MEMA Operations Center 508-820-2000.

5 Plans for Tactical Communications During an Incident

5.1 Overview

In response to events or incidents which cross over political jurisdictions, there will potentially be competing demands and priorities for interoperable communications assets.

Until such time as Incident Command is established, the lead agency designee (i.e., communications supervisor/command personnel), in cooperation with assisting agencies, will have the authority to designate the use of interoperable assets. Once Incident Command has been established, Command Staff or Communication Unit Leaders (when designated) direct the further coordination and delegation of the interoperable communications assets assigned to the event or incident in question.

Agencies should judiciously activate needed interoperable assets so as to both effectively respond to the event and/or incident and also minimize any negative impact on surrounding agencies or jurisdictions. Specifically, interoperable communications should be attempted with the following order of operations in mind (subject to variability based on the agencies involved and the nature of the event/incident):

- Leverage face-to-face communications wherever appropriate. For example, the co-location of all Command and General Staff at the incident command post (ICP) provides the best direct communications and reduces the demand on interoperability resources.
- Employ local communications assets until such time as either those assets become taxed or inadequate based on the nature and/or scope of the incident.
- If response agencies are users of a shared system, utilize that shared system to establish interoperable communications.
- If response agencies operate on disparate systems, utilize shared or mutual aid channels to establish interoperable communications.
- If response agencies do not share systems or channels, utilize a gateway solution to establish interoperable communications.
- Where interoperable communications cannot otherwise be established between response agencies, utilize swap or cache radios to establish operable communications for responders.
- If no other method of interoperability can be established, relay communications through staff members.

When the same resources are requested for two or more incidents, resource assignments should be based on the priority levels listed below:

- Disasters, large scale incidents, or extreme emergencies requiring mutual aid or interagency communications.

- Incidents where imminent danger exists to life or property.
- Incidents requiring the response of multiple agencies.
- Pre-planned events requiring mutual aid or interagency communications.
- Incidents involving a single agency where supplemental communications are needed for agency use.
- Drills, tests and exercises.

In the event of multiple simultaneous incidents within the same priority level, the resources should be allocated with the following priorities in mind:

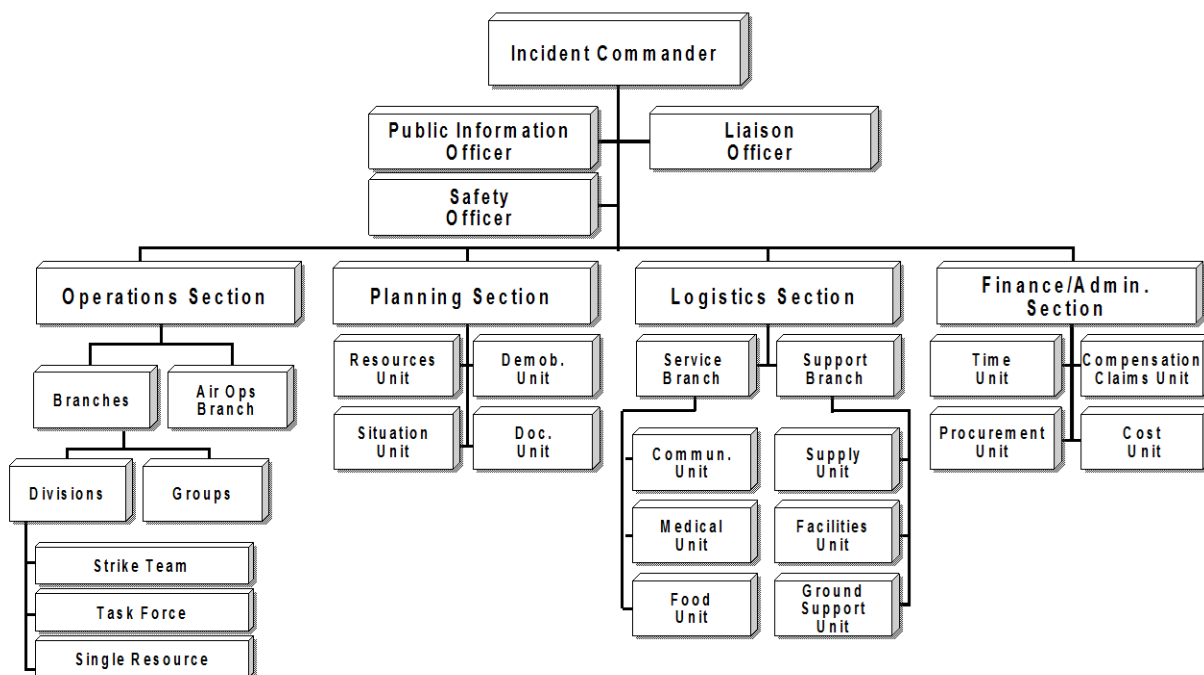
- Incidents with the greatest level of exigency (e.g., greater threat to life or property, more immediate need, etc.) have priority over less exigent incidents.
- Agencies with single/limited interoperable options have priority use of those options over agencies with multiple interoperable options.
- When at all possible, interoperable assets already assigned to agencies during an event should not be redirected to another agency.

The following sections provide county by county operational interoperability information to assist during event planning or an incident response.

5.2 Incident Command Structure

Figure 7 shows a hypothetical Incident Command System structure that would be generally appropriate for the level of incident addressed by this plan.

Figure 7: Hypothetical Incident Command Structure



5.3 Communications Unit Leader Responsibility

The COML has the responsibility to make recommendations concerning communications structure and organization to the Incident Commander. Once approved by the Incident Commander, these actions include implementing interoperable solutions, frequencies, equipment, and systems during an actual event. The COML must be part of the planning process and determine the communications resources required to support the objectives and tactics of the Incident Action Plan, as it develops.

6 Regional Emergency Resource Staffing

6.1 Training Requirements and Qualifications

As soon as practicable after the adoption of this TICP, the OIT Office of Emergency Telecommunications Services will establish a training program to ensure adequate staff are trained as COMLs as defined by the NIMS model. The COMLs should be trained and qualified in accordance with NIMS/ ICS standards. The names and contact information of personnel who have successfully completed training and been qualified as COMLs as defined by the NIMS model, are listed in **Appendix G Regional Communications Unit**.

6.2 Communications Personnel Position Descriptions

6.2.1 At the Dispatch Center/Area Command/SEOC

Communications Coordinator (COMC)

The COMC coordinates communications between and among dispatch centers and incident communication units within one or more affected areas. The COMC reviews incident communication plans to assure that communications channels/talkgroups are allocated and used effectively. Locally, the jurisdictional dispatch center supervisor or dispatcher will act as the COMC when necessary. COMCs may be located at the county, area, State, and Federal level.

6.2.2 At an Incident/Event

Communications Unit Leader (COML)

Manages the technical and operational aspects of the Communications Function during an incident or event. Develops Incident Command System (ICS) Form 205 Incident Communications Plan and supervises the Communication Unit.

Technical Specialist (THSP)

Allows for the incorporation of personnel who may not be formally certified in any specific NIMS/ICS position. THSPs may include Local Agency Radio Technicians (as opposed to the COMT), Telephone Specialists, Gateway Specialists, Data/IT Specialists, and/or Cache Radio Specialists.

Incident Communications Technician (COMT)

Deploys advanced equipment and keeps it operational throughout the incident/event.

Incident Communications Center Manager (INCM)

Supervises the operational aspects of the Incident Communications Center (ICC) (Mobile Unit and/or Fixed Facility). During an incident, the ICC is designed to absorb incident traffic in order to separate that traffic from the day-to-day activities of the dispatch center. The ICC is typically located at the Incident Command Post (ICP) in a fixed site, tent, trailer, or mobile communications unit.

Information Technology Service Unit Leader (ITSL)

Provides information management, cybersecurity, and application management for many critical incident/event-related functions, including:

- Incident/Unified Command Post
- Incident Communications Centers
- Various Tactical Operations Centers
- Joint Information Center (JIC)
- Staging Areas
- Field Locations

Telecommunicator Emergency Response Taskforce (TERT)

Provides mutual aid response in the aftermath of disasters and other special circumstance events. Deployed when a PSAP or other communications center needs assistance in responding to a disaster or unusual occurrence. A TERT dispatcher is different than an INTD (Incident Tactical Dispatcher) in that the purpose of TERT is to provide relief and to augment staffing of a communications center that has experienced a significant event. A tactical or incident dispatch team is typically a field deployment, TERT members can respond to a PSAPs building, an EOC, Mobile Command Post, or a backup center.

Incident Tactical Dispatcher (INTD)

Operates in a command post, base camp, or at the incident scene in support of a specific incident or tactical operation. They leverage the multi-tasking, communication, accountability, and documentation skills of successful telecommunicators to provide public safety communications expertise and support at planned events and extended incidents such as hostage situations, multi-alarm fires, search and rescue operations, bombings, and active shooter incidents. INTDs may support the Communications Unit as a single resource or as part of an incident tactical dispatch team.

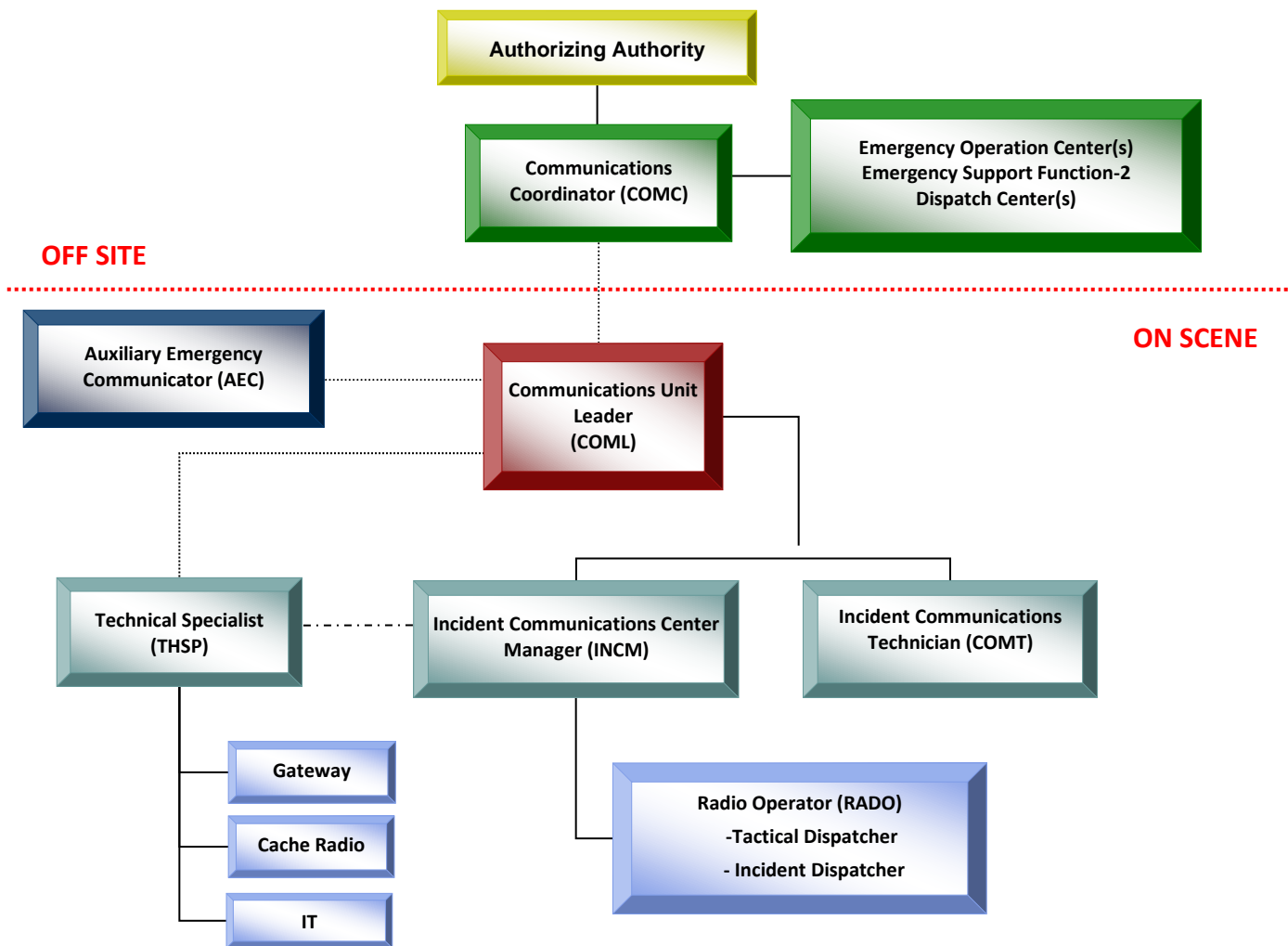
Auxiliary Communications (AUXCOMM)

Volunteer communications operators/groups, using amateur radios, providing backup communications to public safety, often when other forms of communications have failed or have been disrupted. Event planners, public safety officials, and emergency managers at all levels of government utilize AUXCOMMs services.

Radio Operator (RADO)

Staffs a radio at the ICC and is responsible for documenting incoming radio and telephone messages. Incident Dispatchers or Tactical Dispatchers are used as RADOs.

Figure 8: Communications Personnel Position Structure



7 Communications Survey Assets and Mapping (CASM)

The Communication Assets Survey and Mapping (CASM) tool provides the ability for representatives of public safety agencies within an urban area or State to collect, store, and visualize data about agencies, communication assets, and how agencies use those assets.

The purpose of CASM is to:

- Provide a single repository for information about land mobile radio systems, other interoperability methods, and how they are used by public safety agencies within a state or urban area.
- Provide a method to display the data.
- Provide tools to analyze the data and visualize interoperability gaps in accordance with the Interoperability Continuum framework.

The CASM tool is composed of two components: the Communication Assets Survey (CAS) and the Communication Assets Mapping (CAM) tool. The CAS component provides a means to enter, edit, and delete information about agencies, communication assets (such as radio systems, dispatch centers, mutual aid channels/systems, gateways and radio caches), and agency usage of those assets. The CAM component provides a means to display this information in a map-based interface and provides analysis tools for displaying agency-to-agency interoperability, including interoperability gaps, in various ways.

CASM is a web-based tool and requires the user to have an active internet connection in order to access both the CAS and CAM components. CAS is a website that may be accessed via any internet browser, such as Internet Explorer, Netscape Navigator, or Mozilla Firefox. CAM is a client application that must be downloaded, installed, and executed on the user's computer. A user must have internet access in order to operate CAM.

Authorization to view data for a particular urban area is controlled by the NERAC Administrative Manager (AM); each user must have a username and password in order to login.

The CASM AM POCs are listed in the following table:

Table 5: CASM AM POC Information

| Name | Phone | Email | CASM Area of Responsibility |
|------------------|--------------|--|-----------------------------|
| Richard Fiske | 617-620-3607 | MA.SWIC@MASS.GOV | Statewide |
| Joesph Targ | 978-399-2345 | jtarg@westfordma.gov | NERAC |
| Christopher Ryan | 978-801-4914 | christopher.m.ryan@mass.gov | NERAC |

Appendix A Governance and TICP Contributors

Table 6: Governance Designees

| Representing | Member/Designee |
|---|------------------|
| Massachusetts Executive Office of Public Safety & Homeland Security | Richard Fiske |
| Interoperability Committee Designee | Christopher Ryan |

Table 7: Major TICP Contributors

| Agency | Contributor |
|---|-------------------|
| Massachusetts Emergency Management Agency | Andrew Bagdonas |
| North Shore Regional 911 Center | Christopher Ryan |
| Metrofire Inc. | David Frizzell |
| Essex County Sheriff's Department | David Spinosa |
| Greater Boston Police Council | Joe Griffin |
| Northeast EMS, Inc. | Jon Brickett |
| Westford Fire Department | Joseph Targ |
| Beverly Emergency Management | Mark Foster |
| Massachusetts State Police | Matthew Barstow |
| Andover Fire Rescue | Michael Mansfield |
| City of Beverly | Mike Collins |
| Dracut Fire Department | Rich Patterson |
| Massachusetts Executive Office of Public Safety & Homeland Security | Richard Fiske |
| Middleton Fire Department | Tyler Dechene |

Appendix B Shared Systems

B.1 REGIONAL INTEROPERABLE SYSTEM SUMMARY

Table 8: Regional Interoperable Systems

| Shared System Name | Service Area | Radio System |
|---|--|---|
| BAPERN UHF | BAPERN Service Area | UHF Conventional, Repeated |
| CMED VHF | Statewide | VHF Conventional, Simplex |
| CMED UHF | Statewide | UHF Conventional, Repeated |
| DCR VHF | Statewide | VHF Conventional, Repeated and Simplex |
| EMS Shared UHF | Statewide | UHF Conventional, Repeated |
| Fire District 5 VHF | Fire District 5 | VHF Conventional, Repeated and Simplex |
| Fire District 5 UHF | Fire District 5 | UHF Conventional, Repeated and Simplex |
| Fire District 6 UHF | Fire District 6 | UHF Conventional, Repeated and Simplex |
| Fire District 8 VHF-Low | Fire District 8 Mid-State Northern Worcester Co | VHF-Low Conventional, Simplex |
| Fire District 8 UHF | Fire District 8 Mid-State Northern Worcester Co | UHF Conventional, Simplex |
| Metrofire 13 UHF | Fire District 13 | UHF Conventional, Repeated and Simplex |
| Fire District 14 VHF-Low | Fire District 14 | VHF-Low Conventional, Simplex |
| Fire District 14 UHF | Fire District 14 | UHF Conventional, Repeated and Simplex |
| Fire District 15VHF | Fire District 15 | VHF Conventional, Repeated and Simplex |
| Fire District 15 UHF | Fire District 15 | UHF Conventional, Repeated and Simplex |
| MEMA VHF | Statewide | VHF Conventional, Repeated and Simplex |
| Mass CoMIRS System - Statewide 700/800 MHz TRS | Statewide | Statewide 700/800 MHz TRS, 700/800 MHz Conventional, Repeated and Simplex |

B.2 REGIONAL RADIO SYSTEMS AND SERVICE AREAS

Table 9: Boston Area Police Emergency Radio Network (BAPERN) System Key

| Boston Area Police Emergency Radio Network Legend | |
|---|--------------------|
| BAPERN-N | North District |
| BAPERN-NW | Northwest District |
| BAPERN-C | Central District |
| BAPERN-W | West District |

| Community | Regional System | Fire Mob. District System | County | CMED Region | MSP Troop |
|------------|-----------------|---------------------------|-----------|-------------|-----------|
| Acton | NONE | 14 | Middlesex | 4 | A |
| Amesbury | BAPERN-N | 15 | Essex | 3 | A |
| Andover | BAPERN-NW | 6 | Essex | 3 | A |
| Arlington | BAPERN-C | 13 | Middlesex | 4 | A |
| Ashby | NONE | 8 | Middlesex | 2 | C |
| Ashland | BAPERN-W | 14 | Middlesex | 2 | H |
| Ayer | NONE | 6 | Middlesex | 2 | C |
| Bedford | BAPERN-NW | 6 | Middlesex | 4 | A |
| Belmont | BAPERN-C | 13 | Middlesex | 4 | H |
| Beverly | BAPERN-N | 5 | Essex | 3 | A |
| Billerica | BAPERN-NW | 6 | Middlesex | 3 | A |
| Boxborough | NONE | 14 | Middlesex | 4 | A |
| Boxford | BAPERN-N | 15 | Essex | 3 | A |
| Burlington | BAPERN-NW | 13 | Middlesex | 4 | A |
| Carlisle | BAPERN-NW | 14 | Middlesex | 4 | A |
| Chelmsford | BAPERN-NW | 6 | Middlesex | 3 | A |
| Concord | BAPERN-NW | 14 | Middlesex | 4 | A |
| Danvers | BAPERN-N | 5 | Essex | 3 | A |
| Dracut | BAPERN-NW | 6 | Middlesex | 3 | A |
| Dunstable | BAPERN-NW | 6 | Middlesex | 2 | A |
| Essex | BAPERN-N | 5 | Essex | 3 | A |
| Framingham | BAPERN-W | 14 | Middlesex | 4 | H |
| Georgetown | BAPERN-N | 15 | Essex | 3 | A |
| Gloucester | BAPERN-N | 5 | Essex | 3 | A |
| Groton | BAPERN-NW | 6 | Middlesex | 2 | C |
| Groveland | BAPERN-N | 15 | Essex | 3 | A |
| Hamilton | BAPERN-N | 5 | Essex | 3 | A |
| Haverhill | BAPERN-N | 15 | Essex | 3 | A |
| Holliston | NONE | 14 | Middlesex | 4 | H |
| Hopkinton | NONE | 14 | Middlesex | 4 | H |
| Hudson | NONE | 14 | Middlesex | 4 | C |
| Ipswich | BAPERN-N | 5 | Essex | 3 | A |
| Lawrence | BAPERN-NW | 15 | Essex | 3 | A |

| Community | Regional System | Fire Mob. District System | County | CMED Region | MSP Troop |
|-----------------------|-----------------|---------------------------|-----------|-------------|-----------|
| Lexington | BAPERN-C | 13 | Middlesex | 4 | A |
| Lincoln | BAPERN-W | 14 | Middlesex | 4 | A |
| Littleton | BAPERN-NW | 6 | Middlesex | 4 | A |
| Lowell | BAPERN-NW | 6 | Middlesex | 3 | A |
| Lynn | BAPERN-N | 13 | Essex | 3 | A |
| Lynnfield | BAPERN-N | 5 | Essex | 3 | A |
| Malden | BAPERN-C | 13 | Middlesex | 3 | A |
| Manchester By The Sea | BAPERN-N | 5 | Essex | 3 | A |
| Marblehead | BAPERN-N | 5 | Essex | 3 | A |
| Marlborough | NONE | 14 | Middlesex | 4 | C |
| Maynard | NONE | 14 | Middlesex | 4 | A |
| Medford | BAPERN-C | 13 | Middlesex | 4 | A |
| Melrose | BAPERN-NW | 13 | Middlesex | 3 | A |
| Merrimac | BAPERN-N | 15 | Essex | 3 | A |
| Methuen | BAPERN-NW | 15 | Essex | 3 | A |
| Middleton | BAPERN-N | 5 | Essex | 3 | A |
| Nahant | BAPERN-C | 5 | Essex | 3 | H |
| Natick | BAPERN-W | 14 | Middlesex | 4 | H |
| Newbury | BAPERN-N | 15 | Essex | 3 | A |
| Newburyport | BAPERN-N | 15 | Essex | 3 | A |
| Newton | BAPERN-C | 13 | Middlesex | 4 | H |
| North Andover | BAPERN-NW | 15 | Essex | 3 | A |
| North Reading | BAPERN-NW | 6 | Middlesex | 3 | A |
| Peabody | BAPERN-N | 5 | Essex | 3 | A |
| Pepperell | BAPERN-NW | 6 | Middlesex | 2 | C |
| Reading | BAPERN-NW | 13 | Middlesex | 3 | A |
| Rockport | BAPERN-N | 5 | Essex | 3 | A |
| Rowley | BAPERN-N | 15 | Essex | 3 | A |
| Salem | BAPERN-N | 5 | Essex | 3 | A |
| Salisbury | BAPERN-N | 15 | Essex | 3 | A |
| Saugus | BAPERN-N | 13 | Essex | 3 | A |
| Sherborn | BAPERN-W | 14 | Middlesex | 5 | H |
| Shirley | NONE | 6 | Middlesex | 2 | C |
| Stoneham | BAPERN-NW | 13 | Middlesex | 3 | A |
| Stow | NONE | 14 | Middlesex | 4 | A |
| Sudbury | BAPERN-W | 14 | Middlesex | 4 | H |
| Swampscott | BAPERN-N | 5 | Essex | 3 | A |
| Tewksbury | BAPERN-NW | 6 | Middlesex | 3 | A |
| Topsfield | BAPERN-N | 5 | Essex | 3 | A |
| Townsend | BAPERN-NW | 8 | Middlesex | 2 | C |
| Tyngsborough | BAPERN-NW | 6 | Middlesex | 3 | A |
| Wakefield | BAPERN-NW | 13 | Middlesex | 3 | A |
| Waltham | BAPERN-C | 13 | Middlesex | 4 | H |
| Watertown | BAPERN-C | 13 | Middlesex | 4 | H |
| Wayland | BAPERN-W | 14 | Middlesex | 4 | H |
| Wenham | BAPERN-N | 5 | Essex | 3 | A |

| Community | Regional System | Fire Mob. District System | County | CMED Region | MSP Troop |
|--------------|-----------------|---------------------------|-----------|-------------|-----------|
| West Newbury | BAPERN-N | 15 | Essex | 3 | A |
| Westford | BAPERN-NW | 6 | Middlesex | 3 | A |
| Weston | BAPERN-W | 13 | Middlesex | 4 | H |
| Wilmington | BAPERN-NW | 6 | Middlesex | 4 | A |
| Winchester | BAPERN-C | 13 | Middlesex | 4 | A |
| Woburn | BAPERN-NW | 13 | Middlesex | 4 | A |

B.3 SHARED CHANNEL CAPABILITIES OF LOCAL DISPATCH CENTERS

The following crosswalk lists the shared channel capabilities of local dispatch centers on the Northeast Region.

Table 10: Shared Channel Capabilities of Local Dispatch Centers

| AGENCY NAME | DIST 8 VHF-LOW | DIST 14 VHF-LOW | NAT' LE VHF-LOW | CMED VHF | DCR VHF | DIST 5 VHF | DIST 15 VHF | MEMA VHF | NAT' L VHF | BAPERN UHF | CMED UHF | DIST 5 UHF | DIST 6 UHF | DIST 8 UHF | DIST 13 UHF | DIST 14 VHF | DIST 15 UHF | NAT' L UHF | MSP 7/800 CONV | NAT' L 700 | NAT' L 800 | CMED TRUNKED | MEMA TRUNKED | MSP TRUNKED (EVT) | MSP TRUNKED (LPS) |
|-----------------------|----------------|-----------------|-----------------|----------|---------|------------|-------------|----------|------------|------------|----------|------------|------------|------------|-------------|-------------|-------------|------------|----------------|------------|------------|--------------|--------------|-------------------|-------------------|
| ESSEX COUNTY | | | | | | | | | | | | | | | | | | | | | | | | | |
| Amesbury | | | | | | X | X | X | X | X | X | X | X | X | | | X | X | X | X | X | | | X | X |
| Andover | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | | X | X | X |
| Beverly | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | | X | X | X |
| Boxford | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Danvers | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Essex | | | | | | X | X | X | X | X | X | X | X | | | | X | X | X | X | X | | | X | X |
| Georgetown | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Gloucester | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Groveland | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Hamilton | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Haverhill | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Ipswich | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Lawrence | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Lynn | | | | | | X | X | | | X | | X | | | X | | X | | | | | | | | |
| Lynnfield | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Manchester-by-the-Sea | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Marblehead | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Merrimac | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Methuen | | | | | | X | X | | | X | X | X | | | | | X | | | | | | | | |
| Middleton | | | | | | X | X | X | X | X | X | X | X | | | | X | X | X | X | X | X | | X | X |
| Nahant | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Newbury | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Newburyport | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| North Andover | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Peabody | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Rockport | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Rowley | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Salem | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Salisbury | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Saugus | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Swampscott | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |
| Topsfield | | | | | | X | X | X | X | X | X | X | X | | | | X | X | X | X | X | X | | X | X |
| Wenham | | | | | | X | X | X | X | X | X | X | X | | | | X | X | X | X | X | X | | X | X |
| West Newbury | | | | | | X | X | | | X | | X | | | | | X | | | | | | | | |

| AGENCY NAME | DIST 8 VHF-LOW | DIST 14 VHF-LOW | NAT' LE VHF-LOW | CMED VHF | DCR VHF | DIST 5 VHF | DIST 15 VHF | MEMA VHF | NAT' L VHF | BABERN UHF | CMED UHF | DIST 5 UHF | DIST 6 UHF | DIST 8 UHF | DIST 13 UHF | DIST 14 VHF | DIST 15 UHF | NAT' L UHF | MSP 7/800 CONV | NAT' L 700 | NAT' L 800 | CMED TRUNKED | MEMA TRUNKED | MSP TRUNKED (EVT) | MSP TRUNKED (LPS) |
|-------------------------|----------------|-----------------|-----------------|----------|---------|------------|-------------|----------|------------|------------|----------|------------|------------|------------|-------------|-------------|-------------|------------|----------------|------------|------------|--------------|--------------|-------------------|-------------------|
| MIDDLESEX COUNTY | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acton | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Arlington | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Ashby | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Ashland | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | | X | X | X |
| Ayer | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Bedford | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Belmont | | | | | | | | | | X | | | | X | | | | | | | | | | | |
| Billerica | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Boxborough | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Burlington | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Carlisle | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Chelmsford | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Concord | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Dracut | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Dunstable | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Framingham | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Groton | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Holliston | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Hopkinton | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Hudson | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Lexington | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Lincoln | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Littleton | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Lowell | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Malden | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Marlborough | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Maynard | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Medford | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Melrose | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Natick | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Newton | | | | | | | | | | X | | | | | | | | | | | | | | | |
| North Reading | | | | | | X | | | | X | | X | X | | | | | | | | | | | | |
| Pepperell | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Reading | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Sherborn | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Shirley | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Stoneham | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Stow | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Sudbury | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Tewksbury | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Townsend | X | | | | | | | | | X | | | | | | | | | | | | | | | |
| Tyngsborough | | | | | | | | | | X | | X | | | | | | | | | | | | | |

| AGENCY NAME | DIST 8 VHF-LOW | DIST 14 VHF-LOW | NAT' LE VHF-LOW | CMED VHF | DCR VHF | DIST 5 VHF | DIST 15 VHF | MEMA VHF | NAT' 1 VHF | BAPERN UHF | CMED UHF | DIST 5 UHF | DIST 6 UHF | DIST 8 UHF | DIST 13 UHF | DIST 14 VHF | DIST 15 UHF | NAT' 1 UHF | MSP 7/800 CONV | NAT' 1 700 | NAT' 1 800 | CMED TRUNKED | MEMA TRUNKED | MSP TRUNKED (EVT) | MSP TRUNKED (LPS) |
|-------------|----------------|-----------------|-----------------|----------|---------|------------|-------------|----------|------------|------------|----------|------------|------------|------------|-------------|-------------|-------------|------------|----------------|------------|------------|--------------|--------------|-------------------|-------------------|
| Wakefield | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Waltham | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Watertown | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Wayland | | | | | | | | | | X | | | | | | X | | | | | | | | | |
| Westford | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | | X | X | X |
| Weston | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Wilmington | | | | | | | | | | X | | X | | | | | | | | | | | | | |
| Winchester | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Woburn | | | | | | | | | | X | | | | | | | | | | | | | | | |

B.4 REGIONAL INTEROPERABLE SYSTEM DETAIL

Detailed information on each of the Regional and Statewide Interoperable Systems is provided in the following table:

Table 11: Regional Interoperable System Details

| SYSTEM | System Name | | | BAPERN UHF | | | | | |
|----------|------------------------|------------------|--------------------|-----------------------------|-------------------|---------------------|---------------|--------------|--------|
| | General Coverage Area | | | Regional | | | | | |
| | Responsible Agency | | | Brookline Police Department | | Phone | | 617-730-2222 | |
| | Trunked/Conventional | | | Conventional | | Band | | UHF | |
| | Encryption Protocol | | | None | | P25? | | No | |
| | Repeated/Simplex/Both: | | | Repeated | | Analog/Digital/Both | | | Analog |
| | Wideband/Narrowband | | | Narrowband | | Voted | | Yes | |
| | Simulcast | | | Yes | | | | | |
| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | | |
| CHANNELS | Shared Channels | Area-Wide 3 | Analog | Narrow | 470.7875 131.8 | 473.7875 D243 | Public Safety | | |
| | | Area-Wide 4 | Analog | Narrow | 470.5625 131.8 | 473.5625 D244 | Public Safety | | |
| | | North District | Analog | Narrow | 470.4875 131.8 | 473.4875 D245 | LE | | |
| | | South District | Analog | Narrow | 470.9125 131.8 | 473.9125 D251 | LE | | |
| | | West District | Analog | Narrow | 470.7375 131.8 | 473.7375 D261 | LE | | |
| | | Central District | Analog | Narrow | 470.9875 D654 | 473.9875 D223 | LE | | |

| | | | | | | |
|--|----------------------------|---------|--------|-------------------|-------------------|----|
| | Northwest District | Analog | Narrow | 482.6875 146.2 | 485.6875 D263 | LE |
| | Southeast District | Analog | Narrow | 482.8875 203.5 | 485.8875 203.5 | LE |
| | Southwest District | Analog | Narrow | 482.5125 203.5 | 485.5125 203.5 | LE |
| | North Digital Tactical | Digital | Narrow | 482.9625 \$537 | 485.9625 \$537 | LE |
| | Northwest Digital Tactical | Digital | Narrow | 482.6375 \$537 | 485.6375 \$537 | LE |
| | Central Digital Tactical | Digital | Narrow | 470.0375 \$662 | 473.0375 \$226 | LE |
| | South Digital Tactical | Digital | Narrow | 470.1500 \$627 | 473.1500 \$172 | LE |

| SYSTEM | System Name | | | CMED VHF | | | |
|----------|------------------------|------|----------------------|------------------|---------------------|-------------------|-------------|
| | General Coverage Area | | | Merrimack Valley | | | |
| | Responsible Agency | | Northeast Region EMS | | Phone | 978-946-8130 | |
| | Trunked/Conventional | | Conventional | | Band | VHF | |
| | Encryption Protocol | | None | | P25? | No | |
| | Repeated/Simplex/Both: | | Simplex | | Analog/Digital/Both | | Analog |
| | Wideband/Narrowband | | Narrowband | | Voted | | |
| | Simulcast | | | | | | |
| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use |
| CHANNELS | Shared Channels | 340 | Analog | Narrow | 155.3400 123.0 | 155.3400 123.0 | EMS |

| SYSTEM | | System Name | | CMED UHF | | | | |
|--------|--------------------|------------------------|--------------------|----------------------|-----------------------|-----------------------|--------------|--------|
| | | General Coverage Area | | Statewide | | | | |
| | | Responsible Agency | | Northeast Region EMS | | Phone | 978-946-8130 | |
| | | Trunked/Conventional | | Conventional | | Band | UHF | |
| | | Encryption Protocol | | None | | P25? | No | |
| | | Repeated/Simplex/Both: | | Repeated | | Analog/Digital/Both | | Analog |
| | | Wideband/Narrowband | | Narrowband | | Voted | | |
| | | Simulcast | | | | | | |
| | | | | | | | | |
| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |
| CHANN | Shared Channels | MED–1 | Analog | Narrow | 463.0000 See Below | 468.0000 See Below | EMS | |
| | | MED–12 | Analog | Narrow | 463.0125 See Below | 468.0125 See Below | EMS | |

| | | MED-2 | Analog | Narrow | 463.0250 See Below | 468.0250 See Below | EMS |
|--------|--------------|------------------|--------|-----------------|-----------------------|------------------------|-----|
| | | MED-22 | Analog | Narrow | 463.0375 See Below | 468.0375 See Below | EMS |
| | | MED-3 | Analog | Narrow | 463.0500 See Below | 468.05001S ee Below | EMS |
| | | MED-32 | Analog | Narrow | 463.0625 See Below | 468.0625 See Below | EMS |
| | | MED-4 | Analog | Narrow | 463.0750 See Below | 468.0750 See Below | EMS |
| | | MED-42 | Analog | Narrow | 463.0875 See Below | 468.0875 See Below | EMS |
| | | MED-5 | Analog | Narrow | 463.1000 See Below | 468.1000 See Below | EMS |
| | | MED-52 | Analog | Narrow | 463.1125 See Below | 468.1125 See Below | EMS |
| | | MED-6 | Analog | Narrow | 463.1250 See Below | 468.1250 See Below | EMS |
| | | MED-62 | Analog | Narrow | 463.1375 See Below | 468.1375 See Below | EMS |
| | | MED-7 | Analog | Narrow | 463.1500 See Below | 468.1500 See Below | EMS |
| | | MED-72 | Analog | Narrow | 463.1625 See Below | 468.1625 See Below | EMS |
| | | MED-8 | Analog | Narrow | 463.1750 See Below | 468.1750 See Below | EMS |
| | | MED-82 | Analog | Narrow | 463.1875 See Below | 468.1875 See Below | EMS |
| | | MED-9 | Analog | Narrow | 462.9500 See Below | 467.9500 See Below | EMS |
| | | MED-92 | Analog | Narrow | 462.9625 See Below | 467.9625 See Below | EMS |
| | | MED-10 | Analog | Narrow | 462.9750 See Below | 467.9750 See Below | EMS |
| | | MED-102 | Analog | Narrow | 462.9875 See Below | 467.9875 See Below | EMS |
| Region | Phone | Service Area | | Call Sign | | (Narrow) CTCSS | |
| 2 | 508-854-0100 | Worcester County | | Worcester CMED | | 110.9 | |
| 3 | 978-946-8130 | Northeast MA | | North East CMED | | 123.0 | |
| 4 | 617-343-1499 | Metro Boston | | Boston CMED | | 136.5 | |

| | | | | |
|--------|-----------------------|--|---|--------------------|
| SYSTEM | System Name | | DCR VHF | |
| | General Coverage Area | | Statewide | |
| | Responsible Agency | | Department of Conservation and Recreation | Phone 800-831-8569 |

| | | | | | | | | | |
|----------|------------------------|-------------------|--------------------|-----------------|------------------|---------------------|----------------------|-----|--------|
| | Trunked/Conventional | | Conventional | | | Band | | VHF | |
| | Encryption Protocol | | None | | | P25? | | No | |
| | Repeated/Simplex/Both: | | Both | | | Analog/Digital/Both | | | Analog |
| | Wideband/Narrowband | | Narrowband | | | Voted | | | |
| | Simulcast | | | | | | | | |
| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | | |
| CHANNELS | Shared Channels | DCR STATEWIDE | Analog | Narrow | 151.2050 71.9 | 151.2050 71.9 | DCR Authorized Users | | |
| | | DCR BREWSTER | Analog | Narrow | 151.1450 71.9 | 151.4150 162.2 | DCR Authorized Users | | |
| | | DCR PLYMOUTH | Analog | Narrow | 151.1450 71.9 | 151.4150 131.8 | DCR Authorized Users | | |
| | | DCR SHARON | Analog | Narrow | 151.1450 71.9 | 151.4150 82.5 | DCR Authorized Users | | |
| | | DCR ANDOVER | Analog | Narrow | 151.1450 71.9 | 151.4150 110.9 | DCR Authorized Users | | |
| | | DCR WACHUSETT | Analog | Narrow | 151.1450 71.9 | 151.4150 71.9 | DCR Authorized Users | | |
| | | DCR MENDON | Analog | Narrow | 151.1450 71.9 | 151.4150 203.5 | DCR Authorized Users | | |
| | | DCR PELHAM | Analog | Narrow | 151.1450 71.9 | 151.4150 94.8 | DCR Authorized Users | | |
| | | DCR GREYLOCK | Analog | Narrow | 151.1450 71.9 | 151.4150 123.0 | DCR Authorized Users | | |
| | | DCR MONTEREY | Analog | Narrow | 151.1450 71.9 | 151.4150 146.2 | DCR Authorized Users | | |
| | | DCR FIREGROUND | Analog | Narrow | 151.1450 CSQ | 151.1450 71.9 | DCR Authorized Users | | |
| | | DCR FIRE 13 | Analog | Narrow | 151.2350 71.9 | 151.2350 71.9 | DCR Authorized Users | | |
| | | DCR FIRE 14 | Analog | Narrow | 151.3100 71.9 | 151.3100 71.9 | DCR Authorized Users | | |
| | | DCR REC 15 | Analog | Narrow | 151.3700 71.9 | 151.3700 71.9 | DCR Authorized Users | | |
| | | FIRE COMPACT | Analog | Narrow | 159.2850 CSQ | 159.2850 CSQ | DCR Authorized Users | | |

| | | | | |
|--------|------------------------|----------------|---------------------|-----------|
| SYSTEM | System Name | EMS SHARED UHF | | |
| | General Coverage Area | Statewide | | |
| | Responsible Agency | | Phone | By Region |
| | Trunked/Conventional | Conventional | Band | UHF |
| | Encryption Protocol | None | P25? | No |
| | Repeated/Simplex/Both: | Repeated | Analog/Digital/Both | Analog |
| | Wideband/Narrowband | Narrowband | Voted | |
| | Simulcast | | | |

| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use |
|----------|--------------------|---|--------------------|-----------------|-------------------|-------------------|--|
| CHANNELS | Shared Channels | BAMA Dispatch | Analog | Narrow | 470.0750 D291 | 473.0750 D291 | Reg. 4 EMS Mutual Aid Calling Channel |
| | | BAMA Ops | Analog | Narrow | 453.1000 D165 | 458.1000 D165 | Reg. 4 EMS Operations |
| | | Regional Repeated | Analog | Narrow | 470.2000 103.5 | 473.2000 103.5 | Reg. 4 EMS Repeater |
| | | Regional TAC 1 | Analog | Narrow | 470.2000 103.5 | 470.2000 103.5 | Reg. 4 EMS Tactical |
| | | Regional TAC 2 | Analog | Narrow | 473.2000 107.2 | 473.2000 107.2 | Reg. 4 EMS Tactical |
| | | Med 10-2 | Analog | Narrow | 462.9875 123.0 | 467.9875 123.0 | Reg. 3 EMS Mutual Aid Calling Channel |
| | | NOTE: Tones and contact information listed for CMED are for local control and use. Complete information on statewide CMED tones and points of contact are listed in the CMED table in this Section. | | | | | |

| SYSTEM | System Name | | Fire District 5 UHF | | | | | |
|----------|------------------------|-----------------|-------------------------|---------------------|-------------------|-------------------|-------------|--|
| | General Coverage Area | | Fire District 5 | | | | | |
| | Responsible Agency | | Beverly Fire Department | Phone | 978-922-2424 | | | |
| | Trunked/Conventional | | Conventional | Band | UHF | | | |
| | Encryption Protocol | | None | P25? | No | | | |
| | Repeated/Simplex/Both: | | Both | Analog/Digital/Both | | Analog | | |
| | Wideband/Narrowband | | Narrowband | Voted | | | | |
| | Simulcast | | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |
| | | FIRE DISTRICT 5 | Analog | Narrow | 460.1375 131.8 | 465.1375 D445 | Fire | |
| | | ESSEX CO RED | Analog | Narrow | 487.3875 229.1 | 487.3875 229.1 | Fire | |
| | | | | | | | | |

| | | | | | | | | |
|--------|------------------------|------|-------------------------|-----------------|---------------------|--------------|-------------|--|
| SYSTEM | System Name | | Fire District 5 VHF | | | | | |
| | General Coverage Area | | Fire District 5 | | | | | |
| | Responsible Agency | | Beverly Fire Department | | Phone | 978-922-2424 | | |
| | Trunked/Conventional | | Conventional | | Band | VHF | | |
| | Encryption Protocol | | None | | P25? | No | | |
| | Repeated/Simplex/Both: | | Both | | Analog/Digital/Both | | Analog | |
| | Wideband/Narrowband | | Narrowband | | Voted | | | |
| | Simulcast | | | | | | | |
| | | | | | | | | |
| C | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |

| | | | | | | | |
|--|-----------------|-----------------|--------|--------|-------------------|-------------------|------|
| | Shared Channels | FIRE DISTRICT 5 | Analog | Narrow | 154.0700 131.8 | 158.7300 D226 | Fire |
| | | ESSEX CO RED | Analog | Narrow | 153.8300 CSQ | 153.8300 77.0 | Fire |
| | | ESSEX CO WHITE | Analog | Narrow | 154.2800 136.5 | 154.2800 136.5 | Fire |

| | | | | | | | | |
|----------|------------------------|---------|--------------------------|-----------------|---------------------|-------------------|-------------|--|
| SYSTEM | System Name | | Fire District 6 UHF | | | | | |
| | General Coverage Area | | Fire District 6 | | | | | |
| | Responsible Agency | | Westford Fire Department | | Phone | 978-399-2345 | | |
| | Trunked/Conventional | | Conventional | | Band | UHF | | |
| | Encryption Protocol | | None | | P25? | No | | |
| | Repeated/Simplex/Both: | | Both | | Analog/Digital/Both | | Analog | |
| | Wideband/Narrowband | | Narrowband | | Voted | | | |
| | Simulcast | | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |
| | | FD6 OPS | Analog | Narrow | 460.0375 131.8 | 465.0375 131.8 | Fire | |
| | | FD6 FG1 | Analog | Narrow | 486.6375 226 | 486.6375 226 | Fire | |
| | | FD6 FG2 | Analog | Narrow | 484.3875 100.0 | 484.3875 100.0 | Fire | |
| | | FD6 FG3 | Analog | Narrow | 483.6375 025 | 483.6375 025 | Fire | |
| | | FD6 ADM | Analog | Narrow | 483.6375 156.7 | 486.6375 156.7 | Fire | |
| | | | | | | | | |

| SYSTEM | System Name | | Fire District 6 VHF | | | | |
|----------|------------------------|---------|--------------------------|-----------------|---------------------|------------------|-------------|
| | General Coverage Area | | Fire District 6 | | | | |
| | Responsible Agency | | Westford Fire Department | | Phone | 978-399-2345 | |
| | Trunked/Conventional | | Conventional | | Band | VHF | |
| | Encryption Protocol | | None | | P25? | No | |
| | Repeated/Simplex/Both: | | Both | | Analog/Digital/Both | | Analog |
| | Wideband/Narrowband | | Narrowband | | Voted | | |
| | Simulcast | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use |
| | | VHF FG1 | Analog | Narrow | 153.8300 77.0 | 153.8300 77.0 | Fire |

| | | | | | | | | | |
|----------|------------------------|---------------|---|---------------------|-------------------|-------------------|-------------|--|--|
| SYSTEM | System Name | | Fire District 8 UHF | | | | | | |
| | General Coverage Area | | Fire District 8 Mid-State and Northern Worcester Co | | | | | | |
| | Responsible Agency | | Fitchburg Fire Department | Phone | 978-343-4801 | | | | |
| | Trunked/Conventional | | Conventional | Band | UHF | | | | |
| | Encryption Protocol | | None | P25? | No | | | | |
| | Repeated/Simplex/Both: | | Both | Analog/Digital/Both | | Analog | | | |
| | Wideband/Narrowband | | Narrowband | Voted | | | | | |
| | Simulcast | | | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | | |
| | | FD8 SIMULCAST | Analog | Narrow | 453.7500 94.8 | 458.7500 94.8 | Fire | | |
| | | FD8 DIR | Analog | Narrow | 453.7500 94.8 | 453.7500 94.8 | Fire | | |
| | | FD8 Red | Analog | Narrow | 453.9125 131.8 | 453.9125 131.8 | Fire | | |
| | | FD8 White | Analog | Narrow | 458.9625 131.8 | 458.9625 131.8 | Fire | | |
| | | FD8 Blue | Analog | Narrow | 453.9875 131.8 | 453.9875 131.8 | Fire | | |
| | | | | | | | | | |

| SYSTEM | System Name | | Fire District 8 VHF-Low | | | | | | |
|----------|------------------------|--------------|---|---------------------|------------------|------------------|-------------|--|--|
| | General Coverage Area | | Fire District 8 Mid-State and Northern Worcester Co | | | | | | |
| | Responsible Agency | | Fitchburg Fire Department | Phone | 978-343-4801 | | | | |
| | Trunked/Conventional | | Conventional | Band | VHF-Low | | | | |
| | Encryption Protocol | | None | P25? | No | | | | |
| | Repeated/Simplex/Both: | | Both | Analog/Digital/Both | | Analog | | | |
| | Wideband/Narrowband | | Wideband | Voted | | | | | |
| | Simulcast | | | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | | |
| | | MIDSTATE RPT | Analog | Wide | 31.1000 131.8 | 33.7000 131.8 | Fire | | |
| | | MIDSTATE DIR | Analog | Wide | 33.7000 131.8 | 33.7000 131.8 | Fire | | |

| | | | | |
|--------|------------------------|-----------------------------|---------------------|--------------------|
| SYSTEM | System Name | Fire District 13 UHF | | |
| | General Coverage Area | Fire District 13, METROFIRE | | |
| | Responsible Agency | Boston Fire Alarm Office. | Phone | 617-343-2880 |
| | Trunked/Conventional | Conventional | Band | UHF |
| | Encryption Protocol | None | P25? | No |
| | Repeated/Simplex/Both: | Both | Analog/Digital/Both | Analog |
| | Wideband/Narrowband | Narrowband | Voted | Varies per channel |
| | Simulcast | Varies per channel | | |

| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use |
|----------|-----------------|---|--------------------|-----------------|-------------------|-------------------|-------------|
| | | RED CHANNEL | Analog | Narrow | 483.3125 131.8 | 486.3125 131.8 | Fire |
| | | RED CHANNEL DIRECT | Analog | Narrow | 483.3125 131.8 | 483.3125 131.8 | Fire |
| | | NORTH DISTRICT | Analog | Narrow | 482.2500 107.2 | 485.2500 107.2 | Fire |
| | | NORTH DIRECT | Analog | Narrow | 482.2500 107.2 | 482.2500 107.2 | Fire |
| | | FIREGROUND NORTH | Analog | Narrow | 482.1875 141.3 | 482.1875 141.3 | Fire |
| | | CENTRAL DISTRICT | Analog | Narrow | 482.0250 123.0 | 485.0250 123.0 | Fire |
| | | CENTRAL DIRECT | Analog | Narrow | 482.0250 123.0 | 482.0250 123.0 | Fire |
| | | FIREGROUND CENTRAL | Analog | Narrow | 485.1875 127.3 | 485.1875 127.3 | Fire |
| | | SOUTH DISTRICT | Analog | Narrow | 482.2125 103.5 | 485.2121 103.5 | Fire |
| | | SOUTH DIRECT | Analog | Narrow | 482.2125 103.5 | 482.2125 103.5 | Fire |
| | | FIREGROUND SOUTH | Analog | Narrow | 485.1000 114.3 | 485.1000 114.8 | Fire |
| | | ORANGE | Analog | Narrow | 470.1875 156.7 | 473.1875 156.7 | Fire |
| | | ORANGE DIRECT | Analog | Narrow | 470.1875 156.7 | 470.1875 156.7 | Fire |
| | | SILVER | Analog | Narrow | 470.1375 173.8 | 473.1375 173.8 | Fire |
| | | SILVER DIRECT | Analog | Narrow | 470.1375 173.8 | 470.1375 173.8 | Fire |
| | | WHITE CHANNEL (PRIMARY DISPATCH) | Analog | Narrow | 483.2875 131.8 | 486.2875 131.8 | Fire |

| SYSTEM | System Name | Fire District 14 UHF | | | |
|--------|------------------------|-------------------------|---------------------|--------------|--------|
| | General Coverage Area | Fire District 14 | | | |
| | Responsible Agency | Ashland Fire Department | Phone | 508-881-2323 | |
| | Trunked/Conventional | Conventional | Band | UHF | |
| | Encryption Protocol | None | P25? | No | |
| | Repeated/Simplex/Both: | Both | Analog/Digital/Both | | Analog |
| | Wideband/Narrowband | Narrowband | Voted | | |
| | Simulcast | | | | |

| CHANNELS | Shared Channels | Name | Analog/Digital | Wide/Narrow | Mobile RX | Mobile TX | Primary Use |
|----------|-----------------|-----------|----------------|-------------|----------------|----------------|-------------|
| | | 14 NORTH | Analog | Narrow | 453.3875 D065 | 458.3875 D065 | Fire |
| | | 14 SOUTH | Analog | Narrow | 471.0500 D172 | 474.0500 D172 | Fire |
| | | 14 RED | Analog | Narrow | 460.1000 74.4 | 460.1000 74.4 | Fire |
| | | 14 BLUE | Analog | Narrow | 453.5375 118.8 | 453.5375 118.8 | Fire |
| | | 14 WHITE | Analog | Narrow | 471.0500 D172 | 471.0500 D172 | Fire |
| | | 14 GREEN | Analog | Narrow | 453.3875 D065 | 453.3875 D065 | Fire |
| | | 14 GOLD | Analog | Narrow | 460.1000 74.4 | 465.1000 74.4 | Fire |
| | | 14 ORANGE | Analog | Narrow | 453.5376 D445 | 458.5376 D445 | Fire |

| SYSTEM | System Name | | Fire District 14 VHF | | | | |
|----------|------------------------|-----------|-------------------------|-----------------|---------------------|-----------------|-------------|
| | General Coverage Area | | Fire District 14 | | | | |
| | Responsible Agency | | Ashland Fire Department | | Phone | 508-881-2323 | |
| | Trunked/Conventional | | Conventional | | Band | VHF-Low | |
| | Encryption Protocol | | None | | P25? | No | |
| | Repeated/Simplex/Both: | | Simplex | | Analog/Digital/Both | | Analog |
| | Wideband/Narrowband | | Narrowband | | Voted | | |
| | Simulcast | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use |
| | | 14 SILVER | Analog | Narrow | 159.045 D114 | 159.045 D114 | Fire |

| SYSTEM | System Name | | Fire District 15 UHF | | | | | |
|--------|------------------------|------|--------------------------------|---------------------|--------------|-----------|-------------|--|
| | General Coverage Area | | Fire District 15, Essex County | | | | | |
| | Responsible Agency | | Andover Fire Department. | Phone | 978-623-7300 | | | |
| | Trunked/Conventional | | Conventional | Band | UHF | | | |
| | Encryption Protocol | | None | P25? | No | | | |
| | Repeated/Simplex/Both: | | Both | Analog/Digital/Both | | Analog | | |
| | Wideband/Narrowband | | Narrow | Voted | | | | |
| | Simulcast | | | | | | | |
| C | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |

| | | | | | | | |
|--|-----------------|------------------|--------|--------|-------------------|-------------------|------|
| | Shared Channels | Fire Dist 15 | Analog | Narrow | 460.1375 131.8 | 465.1375 D662 | Fire |
| | | Essex County Red | Analog | Narrow | 487.3875 229.1 | 487.3875 229.1 | Fire |

| | | | | | | | | |
|----------|------------------------|----------------|--------------------------------|-----------------|---------------------|-------------------|-------------|--|
| SYSTEM | System Name | | Fire District 15 VHF | | | | | |
| | General Coverage Area | | Fire District 15, Essex County | | | | | |
| | Responsible Agency | | Andover Fire Department | | Phone | 978-623-7300 | | |
| | Trunked/Conventional | | Conventional | | Band | VHF | | |
| | Encryption Protocol | | None | | P25? | No | | |
| | Repeated/Simplex/Both: | | Both | | Analog/Digital/Both | | Analog | |
| | Wideband/Narrowband | | Narrow | | Voted | | | |
| | Simulcast | | | | | | | |
| CHANNELS | Shared Channels | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |
| | | District 15 | A | N | 154.0700 131.8 | 158.7300 D343 | Fire | |
| | | Essex Co Red | A | N | 153.8300 77.0 | 153.8300 CSQ | Fireground | |
| | | Essex Co White | A | N | 154.2800 136.5 | 154.2800 136.5 | Fireground | |
| | | | | | | | | |

| | | | | | | |
|-------------------|------------------------|------------|-----------------------|---------------------|----------------------------|------|
| SYSTEM | System Name | | MEMA TRS | | | |
| | General Coverage Area | | Statewide | | | |
| | Responsible Agency | | Massachusetts EMA | Phone | 508-820-2000 | |
| | Trunked/Conventional | | Trunked | Band | 700/800 MHz | |
| | Encryption Protocol | | | P25? | | |
| | Repeated/Simplex/Both: | | Repeated | Analog/Digital/Both | | Both |
| | Wideband/Narrowband | | Both | Voted | Yes | |
| | Simulcast | | | | | |
| Shared Talkgroups | | Talkgroup | System Platform | | Primary Use | |
| | | MEMA EAST | STATE 700/800 MHz TRS | | Any Public Safety Eligible | |
| | | MEMA SOUTH | STATE 700/800 MHz TRS | | Any Public Safety Eligible | |
| | | MEMA WEST | STATE 700/800 MHz TRS | | Any Public Safety Eligible | |
| | | MEMA METRO | STATE 700/800 MHz TRS | | Any Public Safety Eligible | |

| | | | | | | | |
|--------|-----------------------|--|-------------------|--|-------|--------------|--|
| SYSTEM | System Name | | MEMA VHF | | | | |
| | General Coverage Area | | Statewide | | | | |
| | Responsible Agency | | Massachusetts EMA | | Phone | 508-820-2000 | |
| | Trunked/Conventional | | Conventional | | Band | VHF | |

| | | | | | | | | | |
|----------|------------------------|----------------|--------------------|-----------------|-------------------|---------------------|----------------------------|----|--------|
| | Encryption Protocol | | None | | | P25? | | No | |
| | Repeated/Simplex/Both: | | Both | | | Analog/Digital/Both | | | Analog |
| | Wideband/Narrowband | | Narrow | | | Voted | | | |
| | Simulcast | | | | | | | | |
| | | | | | | | | | |
| | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | | |
| CHANNELS | Shared Channels | R1 BOSTON | Analog | Narrow | 153.9650 203.5 | 154.7850 D445 | Any Public Safety Eligible | | |
| | | R1 AMESBURY | Analog | Narrow | 151.2575 D411 | 154.7850 D445 | Any Public Safety Eligible | | |
| | | R1 FRAMINGHAM | Analog | Narrow | 155.7450 100.0 | 154.7850 D445 | Any Public Safety Eligible | | |
| | | R1 TEWKSBURY | Analog | Narrow | 155.4375 D532 | 154.7850 D445 | Any Public Safety Eligible | | |
| | | R1 TAC | Analog | Narrow | 151.3475 D226 | 151.3475 D226 | Any Public Safety Eligible | | |
| | | R2 PILGRIM | Analog | Narrow | 151.3925 210.7 | 156.0525 210.7 | Any Public Safety Eligible | | |
| | | R2 PLYMOUTH | Analog | Narrow | 154.0850 210.7 | 156.1350 D532 | Any Public Safety Eligible | | |
| | | R2 BRIDGEWATER | Analog | Narrow | 154.7475 D155 | 156.1350 D532 | Any Public Safety Eligible | | |
| | | R2 TAC | Analog | Narrow | 154.7175 D226 | 154.7175 D226 | Any Public Safety Eligible | | |
| | | R3 ADAMS | Analog | Narrow | 155.0850 225.7 | 155.9550 D155 | Any Public Safety Eligible | | |
| | | R3 AMHERST | Analog | Narrow | 153.9050 D532 | 155.9550 D155 | Any Public Safety Eligible | | |
| | | R3 WESTBORO | Analog | Narrow | 151.4525 229.1 | 155.9550 D155 | Any Public Safety Eligible | | |
| | | R3 TAC | Analog | Narrow | 156.1575 D226 | 156.1575 D226 | Any Public Safety Eligible | | |
| | | SW TAC 16 | Analog | Narrow | 154.8225 D226 | 154.8225 D226 | Any Public Safety Eligible | | |

| | | | | | | | | |
|--------|------------------------|------|----------------------------|-----------------|---------------------|-----------|--------------|--------|
| SYSTEM | System Name | | MSP 7/800 | | | | | |
| | General Coverage Area | | Statewide | | | | | |
| | Responsible Agency | | Massachusetts State Police | | Phone | | 508-820-2121 | |
| | Trunked/Conventional | | Conventional | | Band | | 700/800 MHz | |
| | Encryption Protocol | | None | | P25? | | No | |
| | Repeated/Simplex/Both: | | Both | | Analog/Digital/Both | | | Analog |
| | Wideband/Narrowband | | Narrow | | Voted | | | |
| | Simulcast | | | | | | | |
| C | | Name | Analog/ Digital | Wide/ Narrow | Mobile RX | Mobile TX | Primary Use | |

| | | | | | | |
|--|------------|--------|-------------------|--------------------|--------------------|---------------|
| Shared Channels | COM DIR | Analog | Wide ¹ | 853.97500 141.3 | 853.97500 141.3 | State Users * |
| | LOC DIR | Analog | Wide ¹ | 853.98750 141.3 | 853.98750 141.3 | Local Users * |
| | COM MOB 1 | Analog | Narrow | 769.00625 141.3 | 799.00625 141.3 | State Users * |
| | LOC MOB 1 | Analog | Narrow | 769.01875 141.3 | 799.01875 141.3 | Local Users * |
| | COM TAC 1 | Analog | Narrow | 774.93125 141.3 | 774.93125 141.3 | State Users * |
| | LOC TAC 1 | Analog | Narrow | 774.94375 141.3 | 774.94375 141.3 | Local Users * |
| | LAW TAC 1 | Analog | Narrow | 774.95625 141.3 | 774.95625 141.3 | LE Only * |
| | LAW TAC 2 | Analog | Narrow | 774.96875 141.3 | 774.96875 141.3 | LE Only * |
| | FIRE TAC 1 | Analog | Narrow | 769.03125 141.3 | 769.03125 141.3 | Fire Only * |
| | FIRE TAC 2 | Analog | Narrow | 769.04375 141.3 | 769.04375 141.3 | Fire Only * |
| ¹ 20 kHz Spacing / 4 kHz Deviation (NPSPAC) | | | | | | |
| * Use of all channels is authorized by executing an agreement between the user agency and MSP. | | | | | | |

| | | | | | | |
|-------------------|------------------------|----------------------------|-----------------------|--------------|----------------------------|--|
| SYSTEM | System Name | MSPTRS | | | | |
| | General Coverage Area | Statewide | | | | |
| | Responsible Agency | Massachusetts State Police | Phone | 508-820-2121 | | |
| | Trunked/Conventional | Trunked | Band | 700/800 MHz | | |
| | Encryption Protocol | | P25? | | | |
| | Repeated/Simplex/Both: | Repeated | Analog/Digital/Both | | | |
| | Wideband/Narrowband | | Voted | | | |
| Simulcast | | | | | | |
| | | | | | | |
| Shared Talkgroups | | Talkgroup | System Platform | | Primary Use | |
| | | LPS-1 | STATE 700/800 MHz TRS | | NE/Metro Boston Primary | |
| | | LPS-2 | STATE 700/800 MHz TRS | | NE/Metro Boston Secondary | |
| | | LPS-3 | STATE 700/800 MHz TRS | | Bristol/Plymouth Primary | |
| | | LPS-4 | STATE 700/800 MHz TRS | | Bristol/Plymouth Secondary | |
| | | LPS-5 | STATE 700/800 MHz TRS | | Cape/Islands Primary | |
| | | LPS-6 | STATE 700/800 MHz TRS | | Cape/Islands Secondary | |
| | | LPS-7 | STATE 700/800 MHz TRS | | Central Primary | |

| | | | |
|--|----------|-----------------------|-------------------------------|
| | LPS-8 | STATE 700/800 MHz TRS | Central Secondary |
| | LPS-9 | STATE 700/800 MHz TRS | West Primary |
| | LPS-10 | STATE 700/800 MHz TRS | West Secondary |
| | EVENT-1 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-2 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-3 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-4 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-5 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-6 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-7 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-8 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-9 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-10 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-11 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-12 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-13 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-14 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-15 | STATE 700/800 MHz TRS | Special Event Coordination |
| | EVENT-16 | STATE 700/800 MHz TRS | Special Event Coordination |

Appendix C Regional Shared Channels

C.1 REGIONAL SHARED CHANNELS

Table 12: Statewide/Regional VHF-Low Shared Channels Available for Interoperability

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|-------------|--------------------|-----------------|-----------------|-----------------|-------------|--------------------------|
| D8 Low Band | Analog | Wide | 31.100 131.8 | 31.100 131.8 | Fire/EMS | Fire District 8 VHF-Low |
| D8 Yellow | Analog | Wide | 33.800 131.8 | 33.800 131.8 | Fire/EMS | Fire District 8 VHF-Low |
| D8 Green | Analog | Wide | 33.940 131.8 | 33.940 131.8 | Fire/EMS | Fire District 8 VHF-Low |
| D14-E | Analog | Wide | 33.980 127.3 | 33.980 127.3 | Fire | Fire District 14 VHF-Low |
| D14-F | Analog | Wide | 46.360 100.0 | 46.360 100.0 | Fire | Fire District 14 VHF-Low |

Table 13: Statewide/Regional VHF Shared Channels Available for Interoperability

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|----------------|--------------------|-----------------|------------------|-------------------|-------------------------|----------------------|
| 340 | Analog | Narrow | 155.3400 CSQ | 155.3400 CSQ | EMS | CMED VHF |
| DCR STATEWIDE | Analog | Narrow | 151.2050 71.9 | 151.2050 71.9 | DCR Authorized Users | DCR VHF |
| DCR BREWSTER | Analog | Narrow | 151.1450 71.9 | 151.4150 162.2 | DCR Authorized Users | DCR VHF |
| DCR PLYMOUTH | Analog | Narrow | 151.1450 71.9 | 151.4150 131.8 | DCR Authorized Users | DCR VHF |
| DCR SHARON | Analog | Narrow | 151.1450 71.9 | 151.4150 82.5 | DCR Authorized Users | DCR VHF |
| DCR ANDOVER | Analog | Narrow | 151.1450 71.9 | 151.4150 110.9 | DCR Authorized Users | DCR VHF |
| DCR WACHUSETT | Analog | Narrow | 151.1450 71.9 | 151.4150 71.9 | DCR Authorized Users | DCR VHF |
| DCR MENDON | Analog | Narrow | 151.1450 71.9 | 151.4150 203.5 | DCR Authorized Users | DCR VHF |
| DCR PELHAM | Analog | Narrow | 151.1450 71.9 | 151.4150 94.8 | DCR Authorized Users | DCR VHF |
| DCR GREYLOCK | Analog | Narrow | 151.1450 71.9 | 151.4150 123.0 | DCR Authorized Users | DCR VHF |
| DCR MONTEREY | Analog | Narrow | 151.1450 71.9 | 151.4150 146.2 | DCR Authorized Users | DCR VHF |
| DCR FIREGROUND | Analog | Narrow | 151.1450 CSQ | 151.1450 71.9 | DCR Authorized Users | DCR VHF |
| DCR FIRE 13 | Analog | Narrow | 151.2350 71.9 | 151.2350 71.9 | DCR Authorized Users | DCR VHF |
| DCR FIRE 14 | Analog | Narrow | 151.3100 71.9 | 151.3100 71.9 | DCR Authorized Users | DCR VHF |

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|-----------------|--------------------|-----------------|-------------------|-------------------|----------------------------|----------------------|
| DCR REC 15 | Analog | Narrow | 151.3700 71.9 | 151.3700 71.9 | DCR Authorized Users | DCR VHF |
| FIRE COMPACT | Analog | Narrow | 159.2850 CSQ | 159.2850 CSQ | DCR Authorized Users | DCR VHF |
| FIRE DISTRICT 5 | Analog | Narrow | 154.0700 131.8 | 158.7300 D226 | Fire | Fire District 5 VHF |
| ESSEX CO RED | Analog | Narrow | 153.8300 CSQ | 153.8300 77.0 | Fire | Fire District 5 VHF |
| ESSEX CO WHITE | Analog | Narrow | 154.2800 136.5 | 154.2800 136.5 | Fire | Fire District 5 VHF |
| District 15 | Analog | Narrow | 154.0700 131.8 | 158.7300 D343 | Fire | Fire District 15 VHF |
| Essex Co Red | Analog | Narrow | 153.8300 77.0 | 153.8300 CSQ | Fireground | Fire District 15 VHF |
| Essex Co White | Analog | Narrow | 154.2800 136.5 | 154.2800 136.5 | Fireground | Fire District 15 VHF |
| R1 BOSTON | Analog | Narrow | 153.9650 203.5 | 154.7850 D445 | Any Public Safety Eligible | MEMA VHF |
| R1 AMESBURY | Analog | Narrow | 151.2575 D411 | 154.7850 D445 | Any Public Safety Eligible | MEMA VHF |
| R1 FRAMINGHAM | Analog | Narrow | 155.7450 100.0 | 154.7850 D445 | Any Public Safety Eligible | MEMA VHF |
| R1 TEWKSBURY | Analog | Narrow | 155.4375 D532 | 154.7850 D445 | Any Public Safety Eligible | MEMA VHF |
| R1 TAC | Analog | Narrow | 151.3475 D226 | 151.3475 D226 | Any Public Safety Eligible | MEMA VHF |
| R2 PILGRIM | Analog | Narrow | 151.3925 210.7 | 156.0525 210.7 | Any Public Safety Eligible | MEMA VHF |
| R2 PLYMOUTH | Analog | Narrow | 154.0850 210.7 | 156.1350 D532 | Any Public Safety Eligible | MEMA VHF |
| R2 BRIDGEWATER | Analog | Narrow | 154.7475 D155 | 156.1350 D532 | Any Public Safety Eligible | MEMA VHF |
| R2 TAC | Analog | Narrow | 154.7175 D226 | 154.7175 D226 | Any Public Safety Eligible | MEMA VHF |
| R3 ADAMS | Analog | Narrow | 155.0850 225.7 | 155.9550 D155 | Any Public Safety Eligible | MEMA VHF |
| R3 AMHERST | Analog | Narrow | 153.9050 D532 | 155.9550 D155 | Any Public Safety Eligible | MEMA VHF |
| R3 WESTBORO | Analog | Narrow | 151.4525 229.1 | 155.9550 D155 | Any Public Safety Eligible | MEMA VHF |
| R3 TAC | Analog | Narrow | 156.1575 D226 | 156.1575 D226 | Any Public Safety Eligible | MEMA VHF |
| SW TAC 16 | Analog | Narrow | 154.8225 D226 | 154.8225 D226 | Any Public Safety Eligible | MEMA VHF |

Table 14: Statewide/Regional UHF Shared Channels Available for Interoperability

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|----------------------------|--------------------|-----------------|-------------------|-------------------|---------------|----------------------|
| Area-Wide 3 | Analog | Narrow | 470.7875 131.8 | 473.7875 131.8 | Public Safety | BAPERN |
| Area-Wide 4 | Analog | Narrow | 470.5625 131.8 | 473.5625 131.8 | Public Safety | BAPERN |
| North District | Analog | Narrow | 470.4875 131.8 | 473.4875 131.8 | LE | BAPERN |
| South District | Analog | Narrow | 470.9125 131.8 | 473.9125 131.8 | LE | BAPERN |
| West District | Analog | Narrow | 470.7375 131.8 | 473.7375 131.8 | LE | BAPERN |
| Central District | Analog | Narrow | 470.9875 D223 | 473.9875 D654 | LE | BAPERN |
| Northwest District | Analog | Narrow | 482.6875 146.2 | 485.6875 146.2 | LE | BAPERN |
| Southeast District | Analog | Narrow | 482.8875 203.5 | 485.8875 203.5 | LE | BAPERN |
| Southwest District | Analog | Narrow | 482.5125 203.5 | 485.5125 203.5 | LE | BAPERN |
| North Digital Tactical | Digital | Narrow | 482.9625 \$537 | 485.9625 \$537 | LE | BAPERN |
| Northwest Digital Tactical | Digital | Narrow | 482.6375 \$537 | 485.6375 \$537 | LE | BAPERN |
| Central Digital Tactical | Digital | Narrow | 470.0375 \$662 | 473.0375 \$226 | LE | BAPERN |
| South Digital Tactical | Digital | Narrow | 470.1500 \$627 | 473.1500 \$172 | LE | BAPERN |
| MED 9 | Analog | Narrow | 462.9500 114.8 | 467.9500 114.8 | EMS | CMED UHF |
| BAMA Dispatch | Analog | Narrow | 470.0750 D291 | 473.0750 D291 | EMS | CMED UHF |
| BAMA Ops | Analog | Narrow | 453.1000 D165 | 458.1000 D165 | EMS | CMED UHF |
| Regional Repeated | Analog | Narrow | 470.2000 103.5 | 473.2000 103.5 | EMS | CMED UHF |
| Regional TAC 1 | Analog | Narrow | 470.2000 103.5 | 470.2000 103.5 | EMS | CMED UHF |
| Regional TAC 2 | Analog | Narrow | 473.2000 107.2 | 473.2000 107.2 | EMS | CMED UHF |
| Region 3 EMS | Analog | Narrow | 462.9875 123.0 | 467.9875 123.0 | EMS | CMED UHF |
| FIRE DISTRICT 5 | Analog | Narrow | 460.1375 131.8 | 465.1375 D445 | Fire | Fire District 5 UHF |
| ESSEX CO RED | Analog | Narrow | 487.3875 229.1 | 487.3875 229.1 | Fire | Fire District 5 UHF |
| DISTRICT 6 OPS | Analog | Narrow | 460.0375 131.8 | 465.0375 131.8 | Fire | Fire District 6 UHF |

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|-----------------------|--------------------|-----------------|--------------------|--------------------|-------------|----------------------|
| DISTRICT 6 OPS D | Analog | Narrow | 460.0375 131.8 | 460.0375 131.8 | Fire | Fire District 6 UHF |
| DISTRICT 6 ADMIN | Analog | Narrow | 483.6375 156.7 | 486.6375 156.7 | Fire | Fire District 6 UHF |
| DISTRICT 6 ADMIN D | Analog | Narrow | 483.6375 156.7 | 483.6375 156.7 | Fire | Fire District 6 UHF |
| D8 UHF | Analog | Both | 453.75000 94.8 | 453.75000 94.8 | Fire/EMS | Fire District 8 UHF |
| D8 Red | Analog | Both | 453.91250 131.8 | 453.91250 131.8 | Fire/EMS | Fire District 8 UHF |
| D8 Blue | Analog | Both | 453.98750 131.8 | 453.98750 131.8 | Fire/EMS | Fire District 8 UHF |
| D8 White | Analog | Both | 458.96250 131.8 | 458.96250 131.8 | Fire/EMS | Fire District 8 UHF |
| RED WIDE | Analog | Narrow | 483.3125 131.8 | 486.3125 131.8 | Fire | Fire District 13 UHF |
| RED WIDE DIRECT | Analog | Narrow | 483.3125 131.8 | 483.3125 131.8 | Fire | Fire District 13 UHF |
| NORTH DISTRICT | Analog | Narrow | 482.2500 107.2 | 485.2500 107.2 | Fire | Fire District 13 UHF |
| NORTH DIRECT | Analog | Narrow | 482.2500 107.2 | 482.2500 107.2 | Fire | Fire District 13 UHF |
| FIREGROUND NORTH | Analog | Narrow | 482.1875 141.3 | 482.1875 141.3 | Fire | Fire District 13 UHF |
| CENTRAL DISTRICT | Analog | Narrow | 482.0250 123.0 | 485.0250 123.0 | Fire | Fire District 13 UHF |
| CENTRAL DIRECT | Analog | Narrow | 482.0250 123.0 | 482.0250 123.0 | Fire | Fire District 13 UHF |
| FIREGROUND CENTRAL | Analog | Narrow | 485.1875 127.3 | 485.1875 127.3 | Fire | Fire District 13 UHF |
| SOUTH DISTRICT | Analog | Narrow | 482.2125 103.5 | 485.2121 103.5 | Fire | Fire District 13 UHF |
| SOUTH DIRECT | Analog | Narrow | 482.2125 103.5 | 482.2125 103.5 | Fire | Fire District 13 UHF |
| FIREGROUND SOUTH | Analog | Narrow | 485.1000 114.3 | 485.1000 114.8 | Fire | Fire District 13 UHF |
| ORANGE | Analog | Narrow | 470.1875 156.7 | 473.1875 156.7 | Fire | Fire District 13 UHF |
| SILVER | Analog | Narrow | 470.1375 173.8 | 473.1375 173.8 | Fire | Fire District 13 UHF |
| PRIMARY DISPATCH | Analog | Narrow | 483.2875 131.8 | 486.2875 131.8 | Fire | Fire District 13 UHF |
| D14-A | Analog | Narrow | 453.3875 D065 | 458.3875 D065 | Fire | Fire District 14 UHF |
| D14-B | Analog | Narrow | 471.0500 D172 | 474.0500 D172 | Fire | Fire District 14 UHF |
| D14-C | Analog | Narrow | 471.0500 D172 | 471.0500 D172 | Fire | Fire District 14 UHF |

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|------------------|--------------------|-----------------|-------------------|-------------------|-------------|----------------------|
| D14-D | Analog | Narrow | 453.3875 D065 | 453.3875 D065 | Fire | Fire District 14 UHF |
| Fire Dist 15 | Analog | Narrow | 460.1375 131.8 | 465.1375 D662 | Fire | Fire District 15 UHF |
| Essex County Red | Analog | Narrow | 487.3875 229.1 | 487.3875 229.1 | Fire | Fire District 15 UHF |

Table 15: Statewide/Regional 7/800 MHz Shared Channels Available for Interoperability

| NAME | ANALOG/ DIGITAL | WIDE/ NARROW | MOBILE RX | MOBILE TX | PRIMARY USE | INTEROPERABLE SYSTEM |
|--|--------------------|-------------------|--------------------|--------------------|---------------|----------------------|
| COM DIR | Analog | Wide ¹ | 853.97500 141.3 | 853.97500 141.3 | State Users * | MSP 7/800 |
| LOC DIR | Analog | Wide ¹ | 853.98750 141.3 | 853.98750 141.3 | Local Users * | MSP 7/800 |
| COM MOB 1 | Analog | Narrow | 769.00625 141.3 | 799.00625 141.3 | State Users * | MSP 7/800 |
| LOC MOB 1 | Analog | Narrow | 769.01875 141.3 | 799.01875 141.3 | Local Users * | MSP 7/800 |
| COM TAC 1 | Analog | Narrow | 774.93125 141.3 | 774.93125 141.3 | State Users * | MSP 7/800 |
| LOC TAC 1 | Analog | Narrow | 774.94375 141.3 | 774.94375 141.3 | Local Users * | MSP 7/800 |
| LAW TAC 1 | Analog | Narrow | 774.95625 141.3 | 774.95625 141.3 | LE Only * | MSP 7/800 |
| LAW TAC 2 | Analog | Narrow | 774.96875 141.3 | 774.96875 141.3 | LE Only * | MSP 7/800 |
| FIRE TAC 1 | Analog | Narrow | 769.03125 141.3 | 769.03125 141.3 | Fire Only * | MSP 7/800 |
| FIRE TAC 2 | Analog | Narrow | 769.04375 141.3 | 769.04375 141.3 | Fire Only * | MSP 7/800 |
| * Use of all channels is authorized by executing an agreement between the user agency and MSP. | | | | | | |

Table 16: Statewide/Regional Shared Trunked System Talkgroups Available for Interoperability

| TALKGROUP | SYSTEM PLATFORM | PRIMARY USE | INTEROPERABLE SYSTEM |
|------------|-----------------------|------------------------------|----------------------|
| MEMA EAST | STATE 700/800 MHz TRS | Any Public Safety Eligible | MEMA TRS |
| MEMA SOUTH | STATE 700/800 MHz TRS | Any Public Safety Eligible | MEMA TRS |
| MEMA WEST | STATE 700/800 MHz TRS | Any Public Safety Eligible | MEMA TRS |
| MEMA METRO | STATE 700/800 MHz TRS | Any Public Safety Eligible | MEMA TRS |
| LPS-1 | STATE 700/800 MHz TRS | NE/Metro Boston Primary | MSP TRS |
| LPS-2 | STATE 700/800 MHz TRS | NE/Metro Boston Secondary | MSP TRS |
| LPS-3 | STATE 700/800 MHz TRS | Bristol/Plymouth Primary | MSP TRS |

| TALKGROUP | SYSTEM PLATFORM | PRIMARY USE | INTEROPERABLE SYSTEM |
|-----------|-----------------------|-------------------------------|----------------------|
| LPS-4 | STATE 700/800 MHz TRS | Bristol/Plymouth Secondary | MSP TRS |
| LPS-5 | STATE 700/800 MHz TRS | Cape/Islands Primary | MSP TRS |
| LPS-6 | STATE 700/800 MHz TRS | Cape/Islands Secondary | MSP TRS |
| LPS-7 | STATE 700/800 MHz TRS | Central Primary | MSP TRS |
| LPS-8 | STATE 700/800 MHz TRS | Central Secondary | MSP TRS |
| LPS-9 | STATE 700/800 MHz TRS | West Primary | MSP TRS |
| LPS-10 | STATE 700/800 MHz TRS | West Secondary | MSP TRS |
| EVENT-1 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-2 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-3 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-4 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-5 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-6 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-7 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |
| EVENT-8 | STATE 700/800 MHz TRS | Special Event Coordination | MSP TRS |

C.2 NON-FEDERAL INTEROPERABILITY CHANNELS

The FCC has set aside channels in each frequency band for the purposes of providing interoperable communications. These channels are listed in the tables below. *All frequency listings for repeated channels are shown as they would be programmed for a subscriber radio. Repeaters would be programmed in the opposite way.*

Table 17: Non-Federal Interoperability Channels (VHF-Low)

| Non-Federal Interoperability Channels – Vhf Low Band | | | | | |
|--|---------|--------------------|--------------|-------------------------|---------|
| Frequency | | Tx Tone Rx Tone | Wide/ Nar | Eligibility/Primary Use | Name |
| RECV | XMIT | | | | |
| 39.4600 | 45.8600 | 156.7 | W | Law Enforcement | LLAW1 |
| | SIMPLEX | CSQ | W | | LLAW1D |
| 39.4800 | 45.8800 | 156.7 | W | Fire (Proposed) | LFIRE2 |
| | SIMPLEX | CSQ | W | | LFIRE2D |
| 45.8600 | 39.4600 | 156.7 | W | Law Enforcement | LLAW3 |
| | SIMPLEX | CSQ | W | | LLAW3D |
| 45.8800 | 39.4800 | 156.7 | W | Fire (Proposed) | LFIRE4 |
| | SIMPLEX | CSQ | W | | LFIRE4D |

Table 18: Non-Federal Interoperability Channels (VHF-High)

| Non-Federal Interoperability Channels – VHF High Band | | | | | |
|---|----------|--------------------|--------------|--|---------|
| FREQUENCY | | TX TONE RX TONE | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| 155.7525 | SIMPLEX | 156.7 | N | Any Public Safety Eligible Inter-Agency Calling Channel | VCALL10 |
| | | CSQ | | | |
| 151.1375 | SIMPLEX | 156.7 | N | Any Public Safety Eligible Incident Coordination | VTAC11 |
| | | CSQ | | | |
| 154.4525 | SIMPLEX | 156.7 | N | Any Public Safety Eligible Incident Coordination | VTAC12 |
| | | CSQ | | | |
| 158.7375 | SIMPLEX | 156.7 | N | Any Public Safety Eligible Incident Coordination | VTAC13 |
| | | CSQ | | | |
| 159.4725 | SIMPLEX | 156.7 | N | Any Public Safety Eligible Incident Coordination | VTAC14 |
| | | CSQ | | | |
| 154.2800 | 154.280 | 156.7 | N | Fire Mutual Aid ⁶ | VFIRE21 |
| | | CSQ | | | |
| 154.2650 | 154.2650 | 156.7 | N | Fire Mutual Aid ⁹ | VFIRE22 |
| | | CSQ | | | |
| 154.295 | 154.295 | 156.7 | N | Fire Mutual Aid ¹⁰ | VFIRE23 |
| | | CSQ | | | |
| 154.2725 | 154.2725 | 156.7 | N | Fire Mutual Aid | VFIRE24 |

| Non-Federal Interoperability Channels – VHF High Band | | | | | |
|---|----------|--------------------|--------------|---|---------|
| FREQUENCY | | TX TONE RX TONE | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| | | CSQ | | | |
| 154.2875 | 154.2875 | 156.7 | N | Fire Mutual Aid ⁵ | VFIRE25 |
| | | CSQ | | | |
| 154.3025 | 154.3025 | 156.7 | N | Fire Mutual Aid | VFIRE26 |
| | | CSQ | | | |
| 155.3400 | 155.3400 | 156.7 | N | EMS Mutual Aid ⁷ | VMED28 |
| | | CSQ | | | |
| 155.3475 | 155.3475 | 156.7 | N | EMS Mutual Aid | VMED29 |
| | | CSQ | | | |
| 155.4750 | 155.4750 | 156.7 | N | Law Enforcement Inter-Agency | VLAW31 |
| | | CSQ | | | |
| 155.4825 | SIMPLEX | 156.7 | N | Law Enforcement Inter-Agency ⁸ | VLAW32 |
| | | CSQ | | | |
| 159.4725 | 151.1375 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3} | VTAC33 |
| | | CSQ | | | |
| 158.7375 | 154.4525 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3} | VTAC34 |
| | | CSQ | | | |
| 159.4725 | 158.7375 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3, 4} | VTAC35 |
| | | CSQ | | | |
| 151.1375 | 159.4725 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3} | VTAC36 |
| | | CSQ | | | |
| 154.4525 | 158.7375 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3} | VTAC37 |
| | | CSQ | | | |
| 158.7375 | 159.4725 | 136.5 | N | Any Public Safety Eligible Tactical Repeater ^{1, 2, 3, 4} | VTAC38 |
| | | CSQ | | | |

¹To preserve simplex channel availability, designate a primary and secondary repeater pair. For example: If one transportable repeater is used, it should be on VTAC36 (VTAC11/VTAC14 paired). If a second is needed, it should be on VTAC37 (VTAC12/VTAC13 paired) with the understanding that there would remain no available simplex VTAC channels. VTAC13 and/or VTAC14 could be used as talk-around in either or both such use cases, at the risk of being interfered with by repeater users who can't hear the talk-around transmissions.

²Repeater use should have no priority over simplex use of the involved channel(s).

³ It is strongly recommended that tactical repeaters be activated only when called for by a COML as documented on an ICS Form 205 for an incident.

⁴All VTAC repeater pairs except VTAC35/38 (VTAC13/VTAC14 paired) are unavailable for use in Puerto Rico and the US Virgin Islands where VTAC11 and VTAC12 are unavailable for use.

⁵VFIRE25 is also used by Wilmington Fire.

⁶Used as FD 11 Intercity and used as FD 5/15 Fireground.

⁷Used as CMED HEAR Channel.

⁸Used as WMLEC VHF Patch and Tri-State Police Ne.

⁹Used as Fire District 7 RED.

¹⁰Used as Fire District 7 BLUE

Table 19: Non-Federal Interoperability Channels (UHF)

| Non-Federal Interoperability Channels – UHF Band | | | | | |
|--|-----------|--------------------|--------------|--|----------|
| FREQUENCY | | TX TONE RX TONE | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| 453.2125 | 458.42125 | 156.7 | N | General Public Safety Service Calling Channel | UCALL40 |
| | SIMPLEX | CSQ | N | | UCALL40D |
| 453.4625 | 458.4625 | 156.7 | N | General Public Safety Service ⁶ | UTAC41 |
| | SIMPLEX | CSQ | N | | UTAC41D |
| 453.7125 | 458.7125 | 156.7 | N | General Public Safety Service | UTAC42 |
| | SIMPLEX | CSQ | N | | UTAC42D |
| 453.8625 | 458.8625 | 156.7 | N | General Public Safety Service | UTAC43 |
| | SIMPLEX | CSQ | N | | UTAC43D |

⁶UTAC41 is also used by Topsfield Fire

Table 20: Non-Federal Interoperability Channels (700 MHz)

| Non-Federal Interoperability Channels – 700 MHz Band (Digital Use Only) | | | | | |
|---|-----------|------------------|--------------|--|----------|
| FREQUENCY | | TX NAC RX NAC | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| 769.24375 | 799.24375 | 293 | N | General Public Safety Service Calling Channel | 7CALL50 |
| | SIMPLEX | F7E | N | | 7CALL50D |
| 769.14375 | 799.14375 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC51 |
| | SIMPLEX | F7E | N | | 7TAC51D |
| 769.64375 | 799.64375 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC52 |
| | SIMPLEX | F7E | N | | 7TAC52D |
| 770.14375 | 800.14375 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC53 |
| | SIMPLEX | F7E | N | | 7TAC53D |
| 770.64375 | 800.64375 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC54 |
| | SIMPLEX | F7E | N | | 7TAC54D |
| 769.74375 | 799.74375 | 293 | N | General Public Safety Service | 7TAC55 |
| | SIMPLEX | F7E | N | | 7TAC55D |
| 770.24375 | 800.24375 | 293 | N | General Public Safety Service | 7TAC56 |
| | SIMPLEX | F7E | N | | 7TAC56D |
| 770.99375 | 800.99375 | 293 | N | Other Public service | 7GTAC57 |
| | SIMPLEX | F7E | N | | 7GTAC57D |
| 770.89375 | 800.89375 | 293 | N | Mobile Repeater | 7MOB59 |
| | SIMPLEX | F7E | N | | 7MOB59D |
| 770.39375 | 800.39375 | 293 | N | Law Enforcement | 7LAW61 |
| | SIMPLEX | F7E | N | | 7LAW61D |
| 770.49375 | 800.49375 | 293 | N | Law Enforcement | 7LAW62 |
| | SIMPLEX | F7E | N | | 7LAW62D |
| 769.89375 | 799.89375 | 293 | N | Fire | 7FIRE63 |

| Non-Federal Interoperability Channels – 700 MHz Band (Digital Use Only) | | | | | |
|---|-----------|------------------|--------------|--|----------|
| FREQUENCY | | TX NAC RX NAC | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| | SIMPLEX | F7E | N | | 7FIRE63D |
| 769.99375 | 799.99375 | 293 | N | Fire | 7FIRE64 |
| | SIMPLEX | F7E | N | | 7FIRE64D |
| 769.39375 | 799.39375 | 293 | N | EMS | 7MED65 |
| | SIMPLEX | F7E | N | | 7MED65D |
| 769.49375 | 799.49375 | 293 | N | EMS | 7MED66 |
| | SIMPLEX | F7E | N | | 7MED66D |
| 770.74375 | 800.74375 | 293 | N | Mobile data | 7DATA69 |
| | SIMPLEX | F7E | N | | 7DATA69D |
| 773.25625 | 803.25625 | 293 | N | General Public Safety Service Calling Channel | 7CALL70 |
| | SIMPLEX | F7E | N | | 7CALL70D |
| 773.10625 | 803.10625 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC71 |
| | SIMPLEX | F7E | N | | 7TAC71D |
| 773.60625 | 803.60625 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC72 |
| | SIMPLEX | F7E | N | | 7TAC72D |
| 774.10625 | 804.10625 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC73 |
| | SIMPLEX | F7E | N | | 7TAC73D |
| 774.60625 | 804.60625 | 293 | N | General Public Safety Service (Secondary Trunked) | 7TAC74 |
| | SIMPLEX | F7E | N | | 7TAC74D |
| 773.75625 | 803.75625 | 293 | N | General Public Safety Service | 7TAC75 |
| | SIMPLEX | F7E | N | | 7TAC75D |
| 774.25625 | 804.25625 | 293 | N | General Public Safety Service | 7TAC76 |
| | SIMPLEX | F7E | N | | 7TAC76D |
| 774.85625 | 804.85625 | 293 | N | Other Public Service | 7GTAC77 |
| | SIMPLEX | F7E | N | | 7GTAC77D |
| 774.50625 | 804.50625 | 293 | N | Mobile Repeater | 7MOB79 |
| | SIMPLEX | F7E | N | | 7MOB79D |
| 774.00625 | 804.00625 | 293 | N | Police | 7LAW81 |
| | SIMPLEX | F7E | N | | 7LAW81D |
| 774.35625 | 804.35625 | 293 | N | Police | 7LAW82 |
| | SIMPLEX | F7E | N | | 7LAW82D |
| 773.50625 | 803.50625 | 293 | N | Fire | 7FIRE83 |
| | SIMPLEX | F7E | N | | 7FIRE83D |
| 773.85625 | 803.85625 | 293 | N | Fire | 7FIRE84 |
| | SIMPLEX | F7E | N | | 7FIRE84D |
| 773.00625 | 803.00625 | 293 | N | EMS | 7MED86 |
| | SIMPLEX | F7E | N | | 7MED86D |
| 773.35625 | 803.35625 | 293 | N | EMS | 7MED87 |
| | SIMPLEX | F7E | N | | 7MED87D |
| 774.75625 | 804.75625 | 293 | N | Mobile Data | 7DATA89 |

| Non-Federal Interoperability Channels – 700 MHz Band (Digital Use Only) | | | | | |
|---|---------|------------------|--------------|-------------------------|----------|
| FREQUENCY | | TX NAC RX NAC | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| | SIMPLEX | F7E | N | | 7DATA89D |

Table 21: Non-Federal Interoperability Channels (800 MHz)

| Non-Federal Interoperability Channels – 800 MHz Band | | | | | |
|--|----------|--------------------|--------------|--|----------|
| FREQUENCY | | TX TONE RX TONE | WIDE/ NAR | ELIGIBILITY/PRIMARY USE | NAME |
| RECV | XMIT | | | | |
| 851.0125 | 806.0125 | 156.7 | W | General Public Safety Service Calling Channel | 8CALL90 |
| | SIMPLEX | CSQ | W | | 8CALL90D |
| 851.5125 | 806.5125 | 156.7 | W | General Public Safety Service | 8TAC91 |
| | SIMPLEX | CSQ | W | | 8TAC91D |
| 852.0125 | 807.0125 | 156.7 | W | General Public Safety Service | 8TAC92 |
| | SIMPLEX | CSQ | W | | 8TAC92D |
| 852.5125 | 807.5125 | 156.7 | W | General Public Safety Service | 8TAC93 |
| | SIMPLEX | CSQ | W | | 8TAC93D |
| 853.0125 | 808.0125 | 156.7 | W | General Public Safety Service | 8TAC94 |
| | SIMPLEX | CSQ | W | | 8TAC94D |

C.3 TAC-STACK

The TAC-Stack system is capable of linking together multiple frequency bands (i.e. 800, UHF, and VHF) to provide basic radio interoperability to all first responders using the Nationwide Interoperability Channels.

This system also provides additional radio channel capacity for mutual aid operations during pre-planned and emergency events.

The Massachusetts TAC-Stack System utilizes the following Non-Federal Interoperability Channel frequency bands:

Table 22: TAC-Stack location and capability matrix

| County | Site Name | City/Town | 800 | UHF | VHF |
|-----------|------------------|------------|-----|-----|-----|
| Essex | Holt Hill | Andover | X | X | X |
| Essex | Long Hill | Georgetown | X | | |
| Essex | Morse Hill | Essex | X | | |
| Essex | Pow Wow Hill Rd. | Amesbury | X | X | X |
| Middlesex | MEMA Tewksbury | Tewksbury | X | X | X |
| Middlesex | MSP Framingham | Framingham | X | X | X |

| County | Site Name | City/Town | 800 | UHF | VHF |
|-----------|--------------------|------------------|-----|-----|-----|
| Middlesex | Nobscot Hill | Sudbury | X | | |
| Middlesex | Robbins Hill | Chelmsford | X | | |
| Middlesex | Turkey Hill | Arlington | X | | |
| Norfolk | Blue Hill | Milton | X | X | X |
| Suffolk | McCormack Building | Boston | X | X | X |
| Worcester | Athol | Athol | X | | |
| Worcester | Chestnut Hill | Mendon | X | | |
| Worcester | Fitchburg | Fitchburg | X | X | X |
| Worcester | Harvard | Harvard | X | | |
| Worcester | Little Mugget Hill | Charlton | X | | |
| Worcester | Millstone Hill | Worcester | X | | |
| Worcester | Mt. Nebo | Westborough | X | X | X |
| Worcester | Mt. Wachusett | Princeton | X | X | X |
| Worcester | New Braintree | New Braintree | X | X | X |
| Worcester | Oxford | Oxford | X | | |
| Worcester | Ragged Hill | North Brookfield | X | | |

C.4 AMATEUR RADIO

C.4.1 Amateur Radio Emergency Service (ARES)

ARES is a program of American Radio Relay League (ARRL), the national association of Amateur radio in the US consisting of amateur radio operators who volunteer their time, talents, and equipment to provide emergency communications when needed. ARES groups are structured at the county level and often closely aligned with the county Emergency Management function.

C.4.2 Radio Amateur Civil Emergency Service (RACES)

A volunteer organization of licensed amateur radio operators registered with the local and state emergency management organizations to provide auxiliary emergency communications on behalf of local, state or federal government under authority granted in 47 CFR, Part 97, subpart E.

Although the FCC is responsible for the creation and regulation of RACES operations, administration of the service is the responsibility of the Federal Emergency Management Administration (FEMA). FEMA is charged with the task of administrating the RACES groups because of its role in national disaster preparedness and disaster aid and recovery. See FEMA Civil Preparedness Guide CPG 1-15.

Due to the structure of FEMA, each RACES group is, in turn, administered by a local government agency responsible for disaster services. RACES may be activated by the appointed Director of an Emergency Management Office, or authorized representative, for a particular area. The activation is in accordance with an approved civil defense communications plan.

C.4.3 Amateur Global Automatic Link Establishment (ALE) HF Network

The main purpose is Emergency / Disaster Relief Communications, and the focus is to provide a framework to help the various Emergency Communications (Emcomm) and relief organizations in North America and around the world inter-operate better with each other on HF. All ham operators are welcome and invited to participate in the net on the air at any hour of the day or night, for normal communications and messages, soundings, or priority Emcomm use.

Ham radio ALE operators in North America, who can potentially participate in supporting response communications at their own stations, are encouraged to commence scanning operation on the ALE channels during hurricane emergency and disaster relief events. North America Emcomm ALE Voice SSB frequencies are listed in the table below. During significant hurricanes in the North America region, Pilot Station Operators of the Global ALE High Frequency Network are on alert, scanning the standard ALE Data/HF-email/HF-phone-texting/HF-relay frequencies listed below.

Table 23: North America Emcomm ALE Frequencies

| Description | Net Call: HFN | Net Call: HFL |
|---------------------------------|---|---|
| Net Type | Open Primary DATA Net | Open Primary VOICE Net |
| Net Usage | Global ALE High Frequency Network | Voice Net, and International Emergency/ Disaster Relief Net |
| Slots | 10 Time Slots, any ham may join this net in Slot #1 only. All other slots are reserved for HFN Pilot Stations | 10 Time Slots, any ham may join this net in any random Slot. |
| Sounding | Automatic, scan all channels on this list | Manual, scan only the appropriate channels for your geographic area as show in this table |
| Channels (KHz, Single Sideband) | 3596.0 USB International | 3791.0 USB International |
| | 7102.0 USB International | 3845.0 USB North America East |
| | 10145.5 USB International | 3996.0 USB North America West |
| | 14109.0 USB International | 7185.5 USB International, N. America East |
| | 18106.0 USB International | 7296.0 USB North America West |
| | 21096.0 USB International | 14346.0 USB International |
| | 24926.0 USB International | 18117.5 USB International |
| | 28146.0 USB International | 21432.5 USB International |
| | | 24932.0 USB International |
| | | 28312.5 USB International |

The services currently provided by stations in the Global ALE High Frequency network, using Automatic Link Establishment, include: HF SMS Phone Texting, Text HF Email, [real-time-activity tracking](#), HF-to-HF Relay, Net Call ups, Net announcements, and individual station direct HF calling. Real-time activity of who is on the air and able to communicate with each other, is tracked by the network of reporting stations through what is known as "[ALE Channel Zero](#)" on the web. See <http://www.hflink.org> for further info.

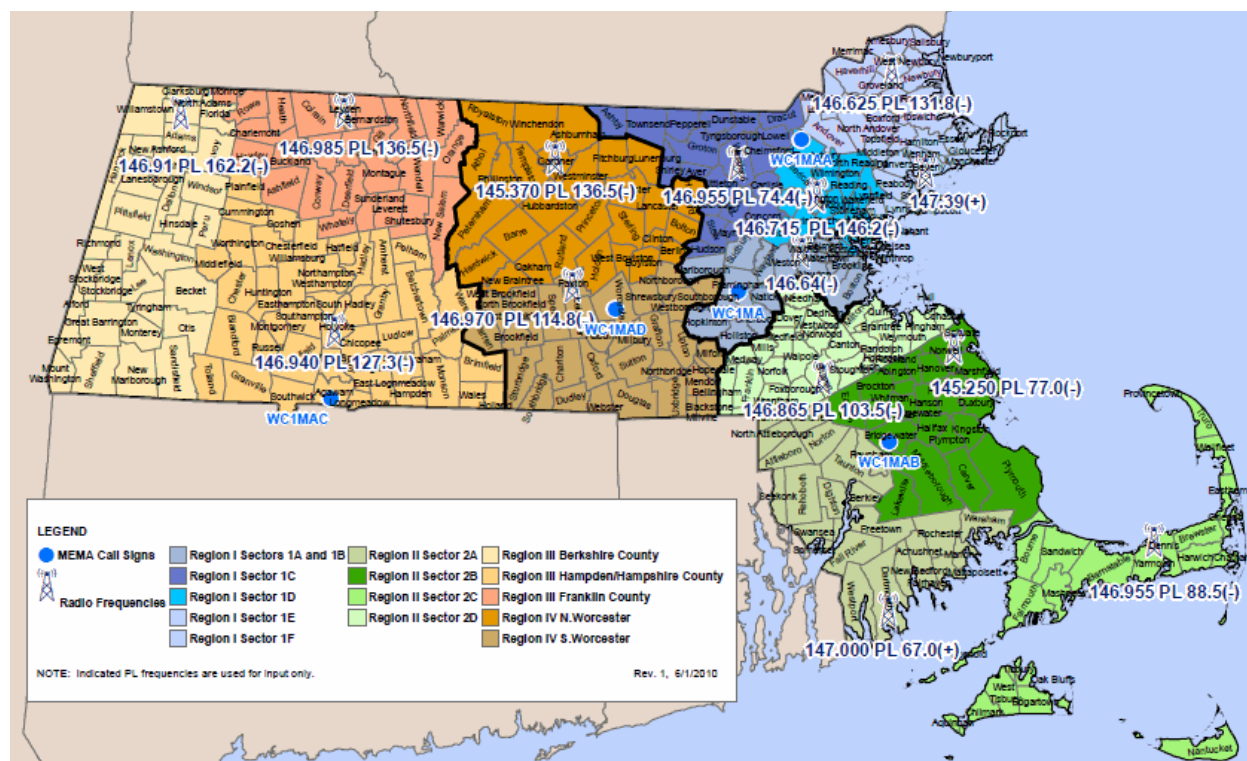


Table 24: Regional ARES/RACES Voice Repeaters

| Channel Name | Frequency | Offset | Tone | iRLP | Callsign | Comments |
|--------------|-----------|----------|-------|------|----------|-------------------------|
| Athol | 147.390 | -600 kHz | 100.0 | 9122 | N1WW | |
| Beverly | 147.390 | +600 kHz | | | | Beverly Sector 1F |
| Dartmouth | 147.000 | -600 kHz | 67.0 | | | Sector 2A |
| Dennis | 146.955 | -600 kHz | 88.5 | | | Sector 2C |
| Fitchburg | 145.450 | -600 kHz | 77.4 | 9122 | W1GZ | |
| Gardner | 145.370 | -600 kHz | 136.5 | 9122 | W1GCD | |
| Greenfield | 146.985 | -600 kHz | 136.5 | | N1OTS | |
| Haverhill | 146.625 | -600 kHz | 131.8 | | | Haverhill Sector 1E |
| Mt Greylock | 146.910 | -600 kHz | 162.2 | | N1PUA | |
| Mt Tom | 146.940 | -600 kHz | 127.3 | | N1MUV | |
| Mt Tom | 146.940 | -600 kHz | 127.3 | | N1MUV | |
| Norwell | 145.390 | -600 kHz | 67.0 | | | Sector 2B |
| Paxton | 146.770 | -600 kHz | 144.8 | 9122 | W1BIM | |
| Salem | 146.880 | -600 kHz | 118.8 | | | Beverly Alternate |
| Sharon | 146.865 | -600 kHz | 146.2 | | | Sector 2D |
| Waltham | 146.640 | -600 kHz | | | | Waltham: Sectors 1A, 1B |
| Westford | 146.955 | -600 kHz | 74.4 | | | Westford Sector 1C |
| Wilmington | 146.715 | -600 kHz | 146.2 | | | Wilmington Sector 1D |
| Winchester | 442.100 | +5 MHz | 88.5 | | | |

Table 25: Regional ARES/RACES Simplex Channels

| Channel Name | Frequency | Tone | Comments |
|----------------------|-----------|------|----------------|
| Waltham Alternate | 146.520 | CSQ | Sectors 1A, 1B |
| Westford Alternate | 147.465 | CSQ | Sector 1C |
| Wilmington Alternate | 146.580 | CSQ | Sector 1D |
| Haverhill Alternate | 146.550 | CSQ | Sector 1E |

Table 26: Statewide ARES/RACES Frequencies

| Channel Name | Frequency | Offset | Tone |
|------------------------|-----------|--------|------|
| Nationwide VHF Simplex | 146.520 | N/A | CSQ |
| Nationwide UHF Simplex | 446.400 | N/A | CSQ |

Appendix D Gateways/Repeaters

Detailed information on all gateways are listed in subsequent pages of this Appendix. Equipment type, operating agency and contact number is provided.

D.1 FIXED GATEWAYS

Table 27: Fixed Gateways

| | | | |
|-----------------------|------------------|-------------|--------------|
| Gateway Name | FIRE DISTRICT 6 | | |
| Responsible Agency | Westford FD | | |
| General Response Area | | | |
| Equipment Location | Westford | 24 HR Phone | 978-399-2345 |
| Equipment Make/Model | Motorola MCC7500 | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|------------------|-------------|--------------|
| Gateway Name | FIRE DISTRICT 15 | | |
| Responsible Agency | Andover FD | | |
| General Response Area | | | |
| Equipment Location | Andover | 24 HR Phone | 978-623-3500 |
| Equipment Make/Model | Motorola MCC7500 | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|--|-------------|--------------|
| Gateway Name | STATE EMERGENCY OPERATIONS CENTER (SEOC) GATEWAY | | |
| Responsible Agency | Massachusetts Emergency Management Agency (MEMA) | | |
| General Response Area | | | |
| Equipment Location | MEMA | 24 HR Phone | 508-820-2000 |
| Equipment Make/Model | Motorola MCC5500 / Centracom Console Patch | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|----------------------------------|-------------|--------------|
| Gateway Name | State Police Operations Gateway | | |
| Responsible Agency | Massachusetts State Police (MSP) | | |
| General Response Area | | | |
| Equipment Location | MSP | 24 HR Phone | 508-820-2121 |
| Equipment Make/Model | Motorola Centracom Console Patch | Nets/Ports | |
| Notes | | | |

| | | | |
|--------------------|--|--|--|
| Gateway Name | TAC-STACK GATEWAYS | | |
| Responsible Agency | Massachusetts Emergency Management Agency (MEMA) Massachusetts State Police (MSP) | | |

| | | | |
|-----------------------|------------------------------------|-------------|------------------------------|
| General Response Area | | | |
| Equipment Location | | 24 HR Phone | 508-820-2000 508-820-2121 |
| Equipment Make/Model | Motobridge GX (VHF/UHF/800 MHz) | Nets/Ports | 60 minimum/12 |
| Notes | | | |

D.2 TRANSPORTABLE GATEWAYS/REPEATERS

Table 28: Transportable Gateways/Repeaters

| | | | |
|-----------------------|---|-------------|--------------|
| Gateway Name | ANDOVER ACU-1000 | | |
| Responsible Agency | Andover FD / Essex County Fire Chiefs Association (ECFCA) | | |
| General Response Area | | | |
| Equipment Location | Andover | 24 HR Phone | 978-623-3500 |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | 8/8 |
| Notes | | | |

| | | | |
|-----------------------|-------------------------|-------------|--------------|
| Gateway Name | ASHLAND ACU-1000 | | |
| Responsible Agency | Ashland FD | | |
| General Response Area | | | |
| Equipment Location | Ashland | 24 HR Phone | 508-881-2323 |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | 8/8 |
| Notes | | | |

| | | | |
|-----------------------|--|-------------|--------------|
| Gateway Name | BEVERLY TOWER TRAILER | | |
| Responsible Agency | Beverly Emergency Management | | |
| General Response Area | | | |
| Equipment Location | Beverly | 24 HR Phone | 978-922-5680 |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | |
| Notes | 2 tower trailers – 1 with ACU, 1 without | | |

| | | | |
|-----------------------|---------------------------------------|-------------|--------------|
| Gateway Name | BEVERLY PDR 3500 (QUANTITY: 2) | | |
| Responsible Agency | Mass Task Force | | |
| General Response Area | Statewide | | |
| Equipment Location | Beverly | 24 HR Phone | 978-922-5680 |
| Equipment Make/Model | Motorola PDR 3500 | Nets/Ports | 1 |
| Notes | 450-470 MHz, 136-174 MHz | | |

| | | | |
|-----------------------|-----------------------------------|--|--|
| Gateway Name | DFS ACU-1000 | | |
| Responsible Agency | Department of Fire Services (DFS) | | |
| General Response Area | | | |

| | | | |
|----------------------|--------------------------|-------------|--------------|
| Equipment Location | DFS | 24 HR Phone | 508-820-2000 |
| Equipment Make/Model | Raytheon ACU-1000 (Stow) | Nets/Ports | 6/12 |
| Notes | | | |

| | | | |
|-----------------------|---|-------------|--------------|
| Repeater Name | FIRE DISTRICT 5 / ECCOPA TACTICAL REPEATERS (800MHz) | | |
| Responsible Agency | Fire District 5 / Essex County Chiefs of Police Association (ECCOPA) / Topsfield PD | | |
| General Response Area | | | |
| Equipment Location | | 24 HR Phone | 978-887-6533 |
| Equipment Make/Model | Motorola Desktrac Repeater(s) 8TAC91,8TAC92,8TAC93,8TAC94 | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|--|-------------|--------------|
| Repeater Name | FIRE DISTRICT 5 PORTABLE | | |
| Responsible Agency | Fire District 5 / Topsfield PD | | |
| General Response Area | Fire District 15 | | |
| Equipment Location | | 24 HR Phone | 978-887-6533 |
| Equipment Make/Model | Raytheon ACU-1000 (VHF,UHF,800,VHF Low) | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|---------------------------------------|-------------|--------------|
| Repeater Name | FIRE DISTRICT 15 8TAC REPEATER | | |
| Responsible Agency | Andover Fire Department | | |
| General Response Area | Fire District 15 | | |
| Equipment Location | Andover | 24 HR Phone | 978-623-3400 |
| Equipment Make/Model | Motorola 8TAC Repeater | Nets/Ports | N/A |
| Notes | | | |

| | | | |
|-----------------------|---------------------------------|-------------|--|
| Repeater Name | FRAMINGHAM TOWER TRAILER | | |
| Responsible Agency | | | |
| General Response Area | | | |
| Equipment Location | Framingham | 24 HR Phone | |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | |
| Notes | | | |

| | | | |
|-----------------------|---|-------------|--------------|
| Gateway Name | JISCC ACU-1000 | | |
| Responsible Agency | MA Army National Guard | | |
| General Response Area | | | |
| Equipment Location | Massachusetts National Guard Joint Operations Center | 24 HR Phone | 508-233-7213 |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | 6/12 |
| Notes | | | |

| | | | |
|-----------------------|--|-------------|------|
| Gateway Name | JPS ACU-1000 | | |
| Responsible Agency | Massachusetts Emergency Management Agency (MEMA) | | |
| General Response Area | | | |
| Equipment Location | | 24 HR Phone | |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | 6/12 |
| Notes | | | |

| | | | |
|-----------------------|-----------------------|-------------|--------------|
| Gateway Name | LITTLETON ICRI | | |
| Responsible Agency | Littleton FD | | |
| General Response Area | | | |
| Equipment Location | Littleton | 24 HR Phone | 978-540-2302 |
| Equipment Make/Model | ICRI | Nets/Ports | 4/2 |
| Notes | | | |

| | | | |
|-----------------------|------------------------|-------------|--------------|
| Gateway Name | MASS TASK FORCE | | |
| Responsible Agency | Mass Task Force | | |
| General Response Area | | | |
| Equipment Location | Beverly | 24 HR Phone | 978-922-5680 |
| Equipment Make/Model | ICRI | Nets/Ports | 4/5 |
| Notes | Plus satcom terminal. | | |

| | | | |
|-----------------------|----------------------------|-------------|--------------|
| Repeater Name | MEMA 8TAC REPEATER | | |
| Responsible Agency | MEMA | | |
| General Response Area | | | |
| Equipment Location | MEMA | 24 HR Phone | 508-820-2000 |
| Equipment Make/Model | (3) Motorola 8TAC Repeater | Nets/Ports | N/A |
| Notes | | | |

| | | | |
|-----------------------|----------------------------------|-------------|--------------|
| Gateway Name | MSP ACU-1000 | | |
| Responsible Agency | MASSACHUSETTS STATE POLICE (MSP) | | |
| General Response Area | | | |
| Equipment Location | FRAMINGHAM | 24 HR Phone | 508-820-2121 |
| Equipment Make/Model | RAYTHEON ACU-1000 | Nets/Ports | 6/16 |
| Notes | | | |

| | | | |
|-----------------------|---|-------------|-----|
| Gateway Name | TOPSFIELD ACU-1000 | | |
| Responsible Agency | Topsfield FD / Essex County Fire Chiefs Association (ECFCA) | | |
| General Response Area | | | |
| Equipment Location | Topsfield | 24 HR Phone | |
| Equipment Make/Model | Raytheon ACU-1000 | Nets/Ports | 8/8 |
| Notes | | | |

| | | | |
|-----------------------|-----------------------------------|-------------|--------------|
| Repeater Name | TOPSFIELD PD 8TAC REPEATER | | |
| Responsible Agency | Topsfield Police Department | | |
| General Response Area | Essex County | | |
| Equipment Location | Topsfield | 24 HR Phone | 978-887-6533 |
| Equipment Make/Model | Motorola 8TAC Repeater | Nets/Ports | N/A |
| Notes | | | |

| | | | |
|-----------------------|----------------------|-------------|--------------|
| Gateway Name | WESTFORD ICRI | | |
| Responsible Agency | Westford FD | | |
| General Response Area | | | |
| Equipment Location | Westford | 24 HR Phone | 978-692-6374 |
| Equipment Make/Model | ICRI | Nets/Ports | 4/2 |
| Notes | | | |

| | | | |
|-----------------------|--------------------------|-------------|--------------|
| Gateway Name | WORCESTER ACU-T | | |
| Responsible Agency | WORCESTER COMMUNICATIONS | | |
| General Response Area | WORCESTER COUNTY | | |
| Equipment Location | WORCESTER COMMUNICATIONS | 24 HR Phone | 508-799-3473 |
| Equipment Make/Model | RAYTHEON ACU-T | Nets/Ports | 3/6 |
| Notes | | | |

Appendix E Radio Caches

Detailed information on all radio caches available for use within the region are listed in subsequent pages of this Appendix. Cache radios should be programmed according to a standardized programming template with, at a minimum, all interoperable channels available for that frequency band included.

Table 29: Radio Caches

| County | Radio Cache Name | Make / Model | Owning/Managing Agency/Phone | Freq. Band | Qty |
|-----------|-----------------------------------|----------------------------|---|-------------|-----|
| Essex | Andover Fire | Motorola MT2000 | Andover Fire Dept. 978-623-3700 | 800 MHz | 27 |
| Essex | Gloucester Fire | Motorola HT1000 | Gloucester FD 978-281-9760 | VHF | 16 |
| Essex | Haverhill Fire | Motorola XTS2500 | Haverhill FD 978-373-8452 | UHF | 6 |
| Essex | NERAC UHF Cache – Mass Task Force | Motorola XTS2500 | Mass Task Force 978-922-5680 | UHF | 60 |
| Essex | NERAC | Motorola APX9000 | Mass Task Force 978-922-5680 | V/U/7/800 | 12 |
| Essex | NERAC | Motorola HT-1000 | Mass Task Force 978-922-5680 | UHF | 12 |
| Essex | NERAC | Motorola XTS5000 | Mass Task Force 978-922-5680 | 800 MHz | 12 |
| Essex | Essex County Fire Chiefs | APX8000 | North Shore Regional 911 Center 978-646-8402 | V/U/7/800 | 14 |
| Middlesex | Framingham Police | Motorola XTS1500 | Framingham PD 508-872-1212 | UHF | 10 |
| Middlesex | Metrofire | Motorola XTS5000 & APX7500 | Cambridge Fire/EMS Department 617-349-4900 | 800 MHz | 30 |
| Middlesex | NERAC Cache - Framingham | Motorola XTS2500 | Framingham DPW 508-532-5600 | UHF | 30 |
| Norfolk | Southeast Region 800 | Motorola XTS2500 | MetroLEC - Wellesley Police 781-235-1212 | 800 MHz | 6 |
| Norfolk | Southeast Region 800 | Motorola XTS2500 | SEMLEC – Marion Police 508-748-1212 | 800 MHz | 6 |
| Norfolk | Southeast Region UHF | Motorola XTS2500 | MetroLEC - Wellesley Police 781-235-1212 | UHF | 6 |
| Norfolk | Southeast Region VHF | Motorola XTS2500 | MetroLEC - Wellesley Police 781-235-1212 | VHF | 6 |
| Suffolk | Boston Fire (Encrypted Capable) | Motorola APX8000 | Boston Fire Dept. 617-343-2880 | Multi | 50 |
| Suffolk | Boston OEM | Motorola APX-7000 | Boston Office of Emergency Mgmt 617-343-2880 | UHF & 7/800 | 27 |
| Worcester | Central Massachusetts EMS UHF1 | Motorola XTS2500 | Central Massachusetts EMS 508-854-0100 | UHF | 15 |
| Worcester | Central Massachusetts EMS UHF2 | Motorola XTS1500 | Central Massachusetts EMS 508-854-0100 | UHF | 15 |

| County | Radio Cache Name | Make / Model | Owning/Managing Agency/Phone | Freq. Band | Qty |
|-----------|----------------------------------|------------------|------------------------------|------------|-----|
| Statewide | MEMA Statewide Radio Cache 800-1 | Motorola MTS2000 | MEMA 508-820-2000 | 800 MHz | 200 |
| | | Motorola APX6000 | | 800 MHz | 100 |

Appendix F Mobile Communications Units

The Massachusetts Homeland Security Regional has the following Mobile Communications Units (MCUs) available for use during incidents or planned events to facilitate communications and coordination among local, state, and federal on-scene response organizations compliant with NIMS. MCUs may be self-propelled or towed and are equipped with various communications and support equipment such as mobile and portable radios, portable repeaters, radio caches, gateways, satellite dishes, cellular, and land line telephone equipment, generators, extendible masts, and auxiliary lighting.

Detailed information on MCUs, MCCs, or MEOCs available within the region and State is listed on subsequent pages of this Appendix.

Tactical Interoperable Communications Plan (TICP)**Table 30: Mobile Communication Unit Details**

| | | | | |
|-----------------------------|----------------|---|---|---|
| MCU Name | | ACTON 37 | | |
| Responsible Agency | | Acton Police Dept | | |
| Location | | 371 Main St., Acton (42.287990, -71.266830) | | |
| Area will respond to | | | | |
| 24 HR Phone | (978) 264-9638 | Activation Method | Phone | |
| Unit ID/Designator | Acton 37 | Deployment Method | Driven | |
| Time to deploy/setup | 20 min. | FEMA Type | Type III | |
| Chassis | 36' GMC | Gateway/Repeater Equipped | No | |
| Dispatch Capability | Yes (2) | SATCOM | None | |
| No. of Phone/Data Lines | 2 | Internet bandwidth | 600-1,400 kbps | |
| LAN Capability | Yes | WiFi Capability | No | |
| No. of Workstations | 2 | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | No | |
| Commercial TV Capability | No | Mast Height (If Applicable) | None | |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache | <input type="checkbox"/> UHF Cache | <input type="checkbox"/> 700 MHz Cache |
| | | <input type="checkbox"/> 800 MHz Cache | <input type="checkbox"/> Dual-Band | <input type="checkbox"/> Other Cache |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low | <input checked="" type="checkbox"/> VHF | <input checked="" type="checkbox"/> UHF |
| | | <input type="checkbox"/> 700 MHz | <input type="checkbox"/> 800 MHz | <input type="checkbox"/> Marine VHF |
| | | <input type="checkbox"/> Aircraft VHF | <input type="checkbox"/> Aircraft UHF | <input type="checkbox"/> Amateur HF |
| | | <input type="checkbox"/> Amateur VHF | <input type="checkbox"/> Amateur UHF | <input type="checkbox"/> Amateur Data |
| | | <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|---------------|--|------------|--|
| MCU Name | | ARLINGTON 365 | | |
| Responsible Agency | | Arlington Police Dept | | |
| Location | | 112 Mystic St., Arlington, MA 02474 | | |
| Area will respond to | | | | |
| 24 HR Phone | 781-316-3921 | Activation Method | Phone Call | |
| Unit ID/Designator | Arlington 365 | Deployment Method | Driven | |
| Time to deploy/setup | | FEMA Type | Type IV | |
| Chassis | Ford E-150 | Gateway/Repeater Equipped | NO | |
| Dispatch Capability | | SATCOM | NO | |
| No. of Phone/Data Lines | 0 | Internet bandwidth | NO | |
| LAN Capability | 0 | WiFi Capability | NO | |
| No. of Workstations | 1 | Conference Area | NO | |
| Video-Conferencing | NO | On Scene Video Monitor | NO | |
| Commercial TV Capability | NO | Mast Height (If Applicable) | N/A | |
| Radio Cache Equipped | NONE | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|-----------------------|---|------------|--|
| MCU Name | | BOSTON MOBILE COMMUNICATIONS | | |
| Responsible Agency | | Boston Fire Department | | |
| Location | | 59 Fenway, Back Bay, Boston, MA | | |
| Area will respond to | | Major incidents in UASI Region | | |
| 24 HR Phone | 617-343-2880 | Activation Method | Phone Call | |
| Unit ID/Designator | FieldCom | Deployment Method | Driven | |
| Time to deploy/setup | 1 Hour | FEMA Type | Type III | |
| Chassis | 2021 LDV Freightliner | Gateway/Repeater Equipped | | |
| Dispatch Capability | | SATCOM | | |
| No. of Phone/Data Lines | | Internet bandwidth | | |
| LAN Capability | | WiFi Capability | | |
| No. of Workstations | | Conference Area | | |
| Video-Conferencing | | On Scene Video Monitor | | |
| Commercial TV Capability | | Mast Height (If Applicable) | | |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | Multiple Positions | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | | | |
|------------------------------------|---|---|-----------------------|--|--|
| MCU Name | BOSTON POLICE MOBILE COMMAND POST | | | | |
| Responsible Agency | Boston Police Department | | | | |
| Location | 400 Frontage Road, Boston, MA | | | | |
| Area will respond to | BAPERN Service Area | | | | |
| 24 HR Phone | 617-343-4620 | Activation Method | Phone | | |
| Unit ID/Designator | | Deployment Method | Driven | | |
| Time to deploy/setup | | FEMA Type | Type IV | | |
| Chassis | 1996 LDV Command Post International Chassis | Gateway/Repeater Equipped | No | | |
| Dispatch Capability | Yes | SATCOM | Track Star Dish | | |
| No. of Phone/Data Lines | 8 | Internet bandwidth | | | |
| LAN Capability | Yes | WiFi Capability | Cisco Wireless System | | |
| No. of Workstations | 9 | Conference Area | Yes – 6 seats | | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | | | |
| Radio Cache Equipped | No | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache | | | |
| | | <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF | | | |
| | | <input type="checkbox"/> 700 MHz <input type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF | | | |
| | | <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF | | | |
| | | <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data | | | |
| | | <input type="checkbox"/> Other | | | |

Photo Not Available At This Time

Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|--------------------------|---|------------|--|
| MCU Name | | CAMBRIDGE MOBILE COMMAND | | |
| Responsible Agency | | Cambridge Fire Department | | |
| Location | | East Cambridge, Station 3 | | |
| Area will respond to | | Metrofire District | | |
| 24 HR Phone | 617-349-4900 | Activation Method | Phone Call | |
| Unit ID/Designator | Fire Command Bus | Deployment Method | Driven | |
| Time to deploy/setup | 1 Hour | FEMA Type | Type IV | |
| Chassis | | Gateway/Repeater Equipped | | |
| Dispatch Capability | Yes | SATCOM | No | |
| No. of Phone/Data Lines | None | Internet bandwidth | | |
| LAN Capability | None | WiFi Capability | Yes | |
| No. of Workstations | 2 | Conference Area | No | |
| Video-Conferencing | None | On Scene Video Monitor | No | |
| Commercial TV Capability | None | Mast Height (If Applicable) | N/A | |
| Radio Cache Equipped | Yes | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input checked="" type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | Has 2 MCC 7500E CONSOLES | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input checked="" type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|-----------------------------|--------------------------------|---|----------------|
| MCU Name | CMEMSC T21 CP | | |
| Responsible Agency | Central Massachusetts EMS Corp | | |
| Location | Sterling | | |
| Area will respond to | Statewide | | |
| 24 HR Phone | 508-854-0100 | Activation Method | Phone Call |
| Unit ID/Designator | T21 CP | Deployment Method | Trailer |
| Time to deploy/setup | 20 Minutes | FEMA Type | Type IV |
| Chassis | Trailer | Gateway/Repeater Equipped | Raytheon ACU-T |
| Dispatch Capability | NA | SATCOM | NA |
| No. of Phone/Data Lines | 0 | Internet bandwidth | NA |
| LAN Capability | NA | WiFi Capability | NA |
| No. of Workstations | NA | Conference Area | No |
| Video-Conferencing | NA | On Scene Video Monitor | No |
| Commercial TV Capability | NA | Mast Height (If Applicable) | NA |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|---------------------------------------|---|----------------|--|
| MCU Name | | CMEMSC DISASTER CP | | |
| Responsible Agency | | Central Massachusetts EMS Corp | | |
| Location | | Holden | | |
| Area will respond to | | | | |
| 24 HR Phone | 508-854-0100 | Activation Method | Phone Call | |
| Unit ID/Designator | Disaster CP | Deployment Method | Trailer | |
| Time to deploy/setup | 30 Minutes | FEMA Type | Type IV | |
| Chassis | | Gateway/Repeater Equipped | Raytheon ACU-T | |
| Dispatch Capability | | SATCOM | Yes (MSAT G2) | |
| No. of Phone/Data Lines | | Internet bandwidth | | |
| LAN Capability | | WiFi Capability | | |
| No. of Workstations | | Conference Area | | |
| Video-Conferencing | | On Scene Video Monitor | | |
| Commercial TV Capability | | Mast Height (If Applicable) | 25' | |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | 1 Tro-Band mast mount U/V/800 antenna | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|-----------------------------|---|--|---------|
| MCU Name | NEMLEC IMT VAN 2 | | |
| Responsible Agency | NEMLEC / Concord Police Dept | | |
| Location | 219 Walden St., Concord | | |
| Area will respond to | NEMLEC communities and outside via mutual aid request | | |
| 24 HR Phone | 978-683-3168 | Activation Method | Phone |
| Unit ID/Designator | NEMLEC IMT VAN 2 | Deployment Method | Driven |
| Time to deploy/setup | 5 min | FEMA Type | Type IV |
| Chassis | Sprinter | Gateway/Repeater Equipped | No |
| Dispatch Capability | Yes (1) | SATCOM | None |
| No. of Phone/Data Lines | 1 | Internet bandwidth | 4G/5G |
| LAN Capability | No | WiFi Capability | Yes |
| No. of Workstations | 1 | Conference Area | No |
| Video-Conferencing | No | On Scene Video Monitor | No |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | None |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|------------------|--|--|---|
| MCU Name | | DFS INCIDENT SUPPORT UNIT 1 | | |
| Responsible Agency | | Massachusetts Department of Fire Services (DFS) | | |
| Location | | Stow | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2000 | Activation Method | Call MEMA | |
| Unit ID/Designator | ISU1 | Deployment Method | 2 | |
| Time to deploy/setup | Under 30 Minutes | FEMA Type | Type III | |
| Chassis | Yes | Gateway/Repeater Equipped | Zetron 4000 | |
| Dispatch Capability | No | SATCOM | | |
| No. of Phone/Data Lines | 5 | Internet bandwidth | | |
| LAN Capability | No | WiFi Capability | No | |
| No. of Workstations | 5 | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 40 | |
| Radio Cache Equipped | | <input checked="" type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache | | |
| | | <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input type="checkbox"/> 700 MHz <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Other | <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur UHF | <input checked="" type="checkbox"/> UHF <input type="checkbox"/> Marine VHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur Data |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|------------------|---|-----------|--|
| MCU Name | | DFS INCIDENT SUPPORT UNIT 2 | | |
| Responsible Agency | | Massachusetts Department of Fire Services (DFS) | | |
| Location | | Easthampton | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2000 | Activation Method | Call MEMA | |
| Unit ID/Designator | ISU 2 | Deployment Method | 2 | |
| Time to deploy/setup | Under 30 minutes | FEMA Type | Type III | |
| Chassis | Yes | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | No | SATCOM | No | |
| No. of Phone/Data Lines | 5 | Internet bandwidth | Yes | |
| LAN Capability | No | WiFi Capability | Yes | |
| No. of Workstations | 4 | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 35't | |
| Radio Cache Equipped | | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|------------------------------------|--------------|--|-------------|
| MCU Name | | DFS INCIDENT SUPPORT UNIT 3 | |
| Responsible Agency | | Massachusetts Department of Fire Services (DFS) | |
| Location | | Middleboro | |
| Area will respond to | | Statewide | |
| 24 HR Phone | 508-820-2000 | Activation Method | Call MEMA |
| Unit ID/Designator | ISU3 | Deployment Method | Driven |
| Time to deploy/setup | 30 Minutes | FEMA Type | Type III |
| Chassis | Yes | Gateway/Repeater Equipped | Zetron 4000 |
| Dispatch Capability | No | SATCOM | |
| No. of Phone/Data Lines | 5 | Internet bandwidth | |
| LAN Capability | No | WiFi Capability | No |
| No. of Workstations | 4 | Conference Area | Yes |
| Video-Conferencing | No | On Scene Video Monitor | Yes |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 50' |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|------------------------------------|---------------------------|--|--|--|
| MCU Name | | E911 MOBILE PSAP | | |
| Responsible Agency | | State 9-1-1 Department | | |
| Location | | 151 Campanelli Drive, Middleboro | | |
| Area will respond to | | Statewide 9-1-1 | | |
| 24 HR Phone | 855-626-4911 | Activation Method | Call Help Desk | |
| Unit ID/Designator | Mobile PSAP | Deployment Method | Driven | |
| Time to deploy/setup | Varies for 9-1-1 | FEMA Type | Type III | |
| Chassis | | Gateway/Repeater Equipped | Motorola MIP5000 | |
| Dispatch Capability | | SATCOM | N/A | |
| No. of Phone/Data Lines | 6 POTS lines | Internet bandwidth | | |
| LAN Capability | Linksys Router / 3g modem | WiFi Capability | 802.11 a/b/g | |
| No. of Workstations | 1 | Conference Area | 6 seats | |
| Video-Conferencing | N/A | On Scene Video Monitor | 2 cameras on mast | |
| Commercial TV Capability | N/A | Mast Height (If Applicable) | 40' | |
| Radio Cache Equipped | Motorola MIP5000 Console | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data | <p>Other *It should also be noted that the Mobile PSAP's primary function is to support PSAPs that are down for extended periods of time. This includes planned and unplanned outages. The truck may be used as a command post however only after all other options have been exhausted.</p> | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|-----------------------------|--------------------------------------|---|-------------------|--|
| MCU Name | FIELD COMM UNIT 20 | | | |
| Responsible Agency | City of Lawrence Fire | | | |
| Location | 298 Ames Street, Lawrence MA | | | |
| Area will respond to | Essex County Fire Districts 5 and 15 | | | |
| 24 HR Phone | 978-623-3400 | Activation Method | Phone Call | |
| Unit ID/Designator | Field Comm20 | Deployment Method | Driven | |
| Time to deploy/setup | 1 Hour | FEMA Type | Type IV | |
| Chassis | | Gateway/Repeater Equipped | Raytheon ACU-1000 | |
| Dispatch Capability | Yes | SATCOM | No | |
| No. of Phone/Data Lines | N/A | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | No | |
| No. of Workstations | 3 | Conference Area | Yes (4 person) | |
| Video-Conferencing | No | On Scene Video Monitor | No | |
| Commercial TV Capability | No | Mast Height (If Applicable) | Yes (Light only) | |
| Radio Cache Equipped | 16 | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | Can Band Frequencies together. | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input checked="" type="checkbox"/> Aircraft VHF <input checked="" type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input checked="" type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|------------------------------------|---------------|---|-------------------|
| MCU Name | | FIELD COMM UNIT 30 | |
| Responsible Agency | | Central Region (Worcester) | |
| Location | | Worcester | |
| Area will respond to | | | |
| 24 HR Phone | 508-799-3473 | Activation Method | Phone Call |
| Unit ID/Designator | Field Comm 30 | Deployment Method | Driven |
| Time to deploy/setup | 1 hour | FEMA Type | Type IV |
| Chassis | | Gateway/Repeater Equipped | Raytheon ACU-1000 |
| Dispatch Capability | Yes | SATCOM | No |
| No. of Phone/Data Lines | N/A | Internet bandwidth | |
| LAN Capability | Yes | WiFi Capability | No |
| No. of Workstations | 3 | Conference Area | Yes (4 person) |
| Video-Conferencing | No | On Scene Video Monitor | No |
| Commercial TV Capability | No | Mast Height (If Applicable) | Yes (Light only) |
| Radio Cache Equipped | 16 | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input type="checkbox"/> VHF <input type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|--|---|------------|--|
| MCU Name | | FIELD COMM UNIT 60 | | |
| Responsible Agency | | Northeast Region (Lowell) | | |
| Location | | Lowell | | |
| Area will respond to | | | | |
| 24 HR Phone | 978-458-4588 | Activation Method | Phone Call | |
| Unit ID/Designator | Field Comm 60 | Deployment Method | Request | |
| Time to deploy/setup | 30-60 Minutes | FEMA Type | Type IV | |
| Chassis | | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | No | |
| No. of Phone/Data Lines | Cell Phone only | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 2 | Conference Area | No | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | No | Mast Height (If Applicable) | 18' | |
| Radio Cache Equipped | 12 | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | ACU-1000 Gateway Patching Capabilities | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|-----------------|--|----------------------|--|
| MCU Name | | FRAMINGHAM 1600 | | |
| Responsible Agency | | Framingham | | |
| Location | | Framingham | | |
| Area will respond to | | Framingham (metro-west and surrounding on case-by-case basis) | | |
| 24 HR Phone | 508-872-1212 | Activation Method | Emergency Management | |
| Unit ID/Designator | Framingham 1600 | Deployment Method | Emergency Management | |
| Time to deploy/setup | 1 hour | FEMA Type | Type III | |
| Chassis | | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | No | |
| No. of Phone/Data Lines | 2/1 | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 4 | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 30' | |
| Radio Cache Equipped | 6 | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache | | |
| | | <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input type="checkbox"/> UHF | | |
| | | <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF | | |
| | | <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF | | |
| | | <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data | | |
| | | <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|--------------|--|----------|--|
| MCU Name | | HAVERHILL ICV-1 | | |
| Responsible Agency | | Haverhill Police Dept | | |
| Location | | 1 Coffin Ave, Haverhill | | |
| Area will respond to | | Local | | |
| 24 HR Phone | 978-373-1212 | Activation Method | Phone | |
| Unit ID/Designator | ICV-1 | Deployment Method | Driven | |
| Time to deploy/setup | 30 minutes | FEMA Type | Type III | |
| Chassis | 26' | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes (5) | SATCOM | None | |
| No. of Phone/Data Lines | 6 | Internet bandwidth | 3G | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 7 | Conference Area | Yes | |
| Video-Conferencing | Yes | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 12' | |
| Radio Cache Equipped | Yes | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | YEs | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|---------------------|--|------------|
| MCU Name | HOLLISTON | | |
| Responsible Agency | Holliston Fire Dept | | |
| Location | 59 Central Street | | |
| Area will respond to | MA Fire District 14 | | |
| 24 HR Phone | 508-429-2323 | Activation Method | Phone Call |
| Unit ID/Designator | Rescue 1 | Deployment Method | Driven |
| Time to deploy/setup | 1 Hour | FEMA Type | Type IV |
| Chassis | | Gateway/Repeater Equipped | No |
| Dispatch Capability | Yes | SATCOM | No |
| No. of Phone/Data Lines | No | Internet bandwidth | No |
| LAN Capability | No | WiFi Capability | No |
| No. of Workstations | 1 | Conference Area | Yes |
| Video-Conferencing | No | On Scene Video Monitor | No |
| Commercial TV Capability | No | Mast Height (If Applicable) | No |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|------------------------------|---|---|--|
| MCU Name | | MASSACHUSETTS ARMY NATIONAL GUARD CST | | |
| Responsible Agency | | Massachusetts National Guard Joint Operations Center | | |
| Location | | 14 Minuteman Lane, Wellesley, MA | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-233-7213 | Activation Method | MEMA authorization through the Adjutant General JFHQ-MA | |
| Unit ID/Designator | CST | Deployment Method | Driven | |
| Time to deploy/setup | 90 Minutes from notification | FEMA Type | | |
| Chassis | GMC C6500 | Gateway/Repeater Equipped | Raytheon ACU-1000 / ICRI | |
| Dispatch Capability | None | SATCOM | Harris 117 / Iridium | |
| No. of Phone/Data Lines | 4 / 4 | Internet bandwidth | 786KBs up / 1.2MBs down | |
| LAN Capability | NIPR/SIPR | WiFi Capability | Yes (Cisco IP Phones Only) | |
| No. of Workstations | 3 Laptops | Conference Area | None | |
| Video-Conferencing | Non Secure VTC | On Scene Video Monitor | No | |
| Commercial TV Capability | No | Mast Height (If Applicable) | 10 Meters | |
| Radio Cache Equipped | | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input checked="" type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input checked="" type="checkbox"/> Other – HF (Micom), Rover 5 | | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|--------------------------------|--|----------------|--|
| MCU Name | MATF V-1 | | | |
| Responsible Agency | Mass Task Force | | | |
| Location | 43 Airport Rd., Beverly | | | |
| Area will respond to | Statewide | | | |
| 24 HR Phone | 978-922-5680 | Activation Method | Phone request | |
| Unit ID/Designator | V-1 | Deployment Method | Self-Propelled | |
| Time to deploy/setup | 1 Hour | FEMA Type | Type II | |
| Chassis | 43 feet | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | Yes | |
| No. of Phone/Data Lines | NA | Internet bandwidth | T1 | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 3 | Conference Area | No | |
| Video-Conferencing | Yes | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 25 Ft | |
| Radio Cache Equipped | Yes | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | Can Band Frequencies together. | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input checked="" type="checkbox"/> Aircraft VHF <input checked="" type="checkbox"/> Aircraft UHF <input checked="" type="checkbox"/> Amateur HF <input checked="" type="checkbox"/> Amateur VHF <input checked="" type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



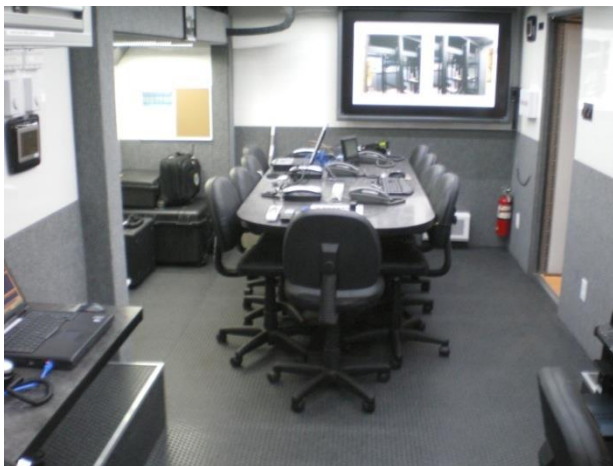
Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|------------------|--|------------|--|
| MCU Name | | MEMA MOBILE COMMUNICATIONS SUPPORT TRAILER (MCST) | | |
| Responsible Agency | | Massachusetts Emergency Management Agency (MEMA) | | |
| Location | | Framingham - SEOC | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2000 | Activation Method | Phone Call | |
| Unit ID/Designator | MCST | Deployment Method | Towed | |
| Time to deploy/setup | TBD | FEMA Type | | |
| Chassis | | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | VSAT | |
| No. of Phone/Data Lines | 8 Phone / 4 Data | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 1 | Conference Area | No | |
| Video-Conferencing | No | On Scene Video Monitor | No | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 40' | |
| Radio Cache Equipped | yes | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input checked="" type="checkbox"/> Amateur HF <input checked="" type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input checked="" type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|---|--|------------|--|--|
| MCU Name | MEMA MOBILE EMERGENCY OPERATIONS CENTER (MEOC) | | | | |
| Responsible Agency | Massachusetts Emergency Management Agency (MEMA) | | | | |
| Location | Framingham – SEOC (NOTE – MEMA has two (2) MEOCs) | | | | |
| Area will respond to | Statewide | | | | |
| 24 HR Phone | 508-820-2000 | Activation Method | Phone Call | | |
| Unit ID/Designator | MEOT | Deployment Method | Towed | | |
| Time to deploy/setup | TBD | FEMA Type | | | |
| Chassis | | Gateway/Repeater Equipped | No | | |
| Dispatch Capability | Yes | SATCOM | 8GAN | | |
| No. of Phone/Data Lines | 9 Phone/ 8 Data | Internet bandwidth | | | |
| LAN Capability | Yes | WiFi Capability | Yes | | |
| No. of Workstations | 5 | Conference Area | Yes | | |
| Video-Conferencing | Yes | On Scene Video Monitor | Yes | | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 50' | | |
| Radio Cache Equipped | Yes | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|--------------|--|-------------------|--|
| MCU Name | | MEP COMMUNICATION VEHICLE | | |
| Responsible Agency | | Massachusetts Environmental Police (MEP) | | |
| Location | | Westover | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 800-632-8075 | Activation Method | Regional Officer | |
| Unit ID/Designator | EP381 | Deployment Method | Driven | |
| Time to deploy/setup | TBD | FEMA Type | Type IV | |
| Chassis | | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | | |
| No. of Phone/Data Lines | | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 2 | Conference Area | Work Counter Only | |
| Video-Conferencing | Yes | On Scene Video Monitor | | |
| Commercial TV Capability | No | Mast Height (If Applicable) | N/A | |
| Radio Cache Equipped | Yes | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input checked="" type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input checked="" type="checkbox"/> Dual-Band <input checked="" type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|--------------|---|-------------------|--|
| MCU Name | | MEP INCIDENT COMMAND VEHICLE | | |
| Responsible Agency | | Massachusetts Environmental Police (MEP) | | |
| Location | | Marlboro | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 800-632-8075 | Activation Method | Regional Officer | |
| Unit ID/Designator | EP99 | Deployment Method | Driven | |
| Time to deploy/setup | TBD | FEMA Type | Type III | |
| Chassis | | Gateway/Repeater Equipped | Raytheon ACU-1000 | |
| Dispatch Capability | Yes | SATCOM | Yes | |
| No. of Phone/Data Lines | | Internet bandwidth | | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 1 | Conference Area | Yes | |
| Video-Conferencing | Yes | On Scene Video Monitor | TBD | |
| Commercial TV Capability | No | Mast Height (If Applicable) | No | |
| Radio Cache Equipped | Yes | <input checked="" type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input checked="" type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input checked="" type="checkbox"/> Dual-Band <input checked="" type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|-----------------------------|--|--|---------------------------|--|
| MCU Name | | METROLEC CP | | |
| Responsible Agency | | Metropolitan Law Enforcement Council | | |
| Location | | Milton | | |
| Area will respond to | | 43 member agency communities across Norfolk, Middlesex, Plymouth, Bristol and Worcester Counties, and others on a case-by-case basis. | | |
| 24 HR Phone | 781-235-1212 | Activation Method | Phone Call | |
| Unit ID/Designator | MetroLEC CP | Deployment Method | Driven | |
| Time to deploy/setup | 5 minutes setup | FEMA Type | Type III | |
| Chassis | International | Gateway/Repeater Equipped | Raytheon ACU-1000 | |
| Dispatch Capability | Full Dispatch | SATCOM | Yes | |
| No. of Phone/Data Lines | 2 phone / fax and 3 data lines | Internet bandwidth | 3G & 4G | |
| LAN Capability | Yes | WiFi Capability | Yes (2) | |
| No. of Workstations | 4+ | Conference Area | Yes | |
| Video-Conferencing | In Process | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 48' (2 cameras & antenna) | |
| Radio Cache Equipped | Yes | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input checked="" type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | Full range of comms available, including patch capabilities, (ACU 1000), and dispatch on multiple regional frequencies (e.g., BAPERN, CMED, Fire Districts). | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|-------------------------------------|--|----------------|--|
| MCU Name | | MIDDLESEX COUNTY CP | | |
| Responsible Agency | | Middlesex County Sheriff | | |
| Location | | 844 Woburn st., Wilmington, MA | | |
| Area will respond to | | | | |
| 24 HR Phone | 978-667-1711 | Activation Method | Contact Agency | |
| Unit ID/Designator | Middlesex Co CP | Deployment Method | Driven | |
| Time to deploy/setup | TBD | FEMA Type | Type III | |
| Chassis | 40 ft Coach | Gateway/Repeater Equipped | Yes | |
| Dispatch Capability | Yes | SATCOM | Yes | |
| No. of Phone/Data Lines | 4 Cellular Phones | Internet bandwidth | 4G | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 4 | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 40' | |
| Radio Cache Equipped | | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input checked="" type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | 800 MHz repeater 2 UHF repeaters | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|--------------------------------|---|-----------------------------|
| MCU Name | | MSP COMMAND POST #1 (CP1) | |
| Responsible Agency | | Massachusetts State Police (MSP) | |
| Location | | Framingham | |
| Area will respond to | | Statewide | |
| 24 HR Phone | 508-820-2121 | Activation Method | Phone Call |
| Unit ID/Designator | CP 1 | Deployment Method | Driven |
| Time to deploy/setup | 4 hours | FEMA Type | Type III |
| Chassis | 54 foot TT Unit | Gateway/Repeater Equipped | Motorola MCC5500 |
| Dispatch Capability | Yes - MCC 5000 Consoles (5) | SATCOM | Yes - Network and telephone |
| No. of Phone/Data Lines | 16+ | Internet bandwidth | 1MB/s dedicated 3G Cellular |
| LAN Capability | Yes | WiFi Capability | yes |
| No. of Workstations | 6 plus conference room | Conference Area | yes |
| Video-Conferencing | No | On Scene Video Monitor | yes |
| Commercial TV Capability | Yes/over the air and satellite | Mast Height (If Applicable) | 42' |
| Radio Cache Equipped | No | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

| | | | | |
|-----------------------------|--------------------------------|--|---------------------------------------|--|
| MCU Name | | MSP COMMAND POST #2 (CP2) | | |
| Responsible Agency | | Massachusetts State Police (MSP) | | |
| Location | | Framingham | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2121 | Activation Method | Phone Call | |
| Unit ID/Designator | CP 2 | Deployment Method | Driven | |
| Time to deploy/setup | 2 hours | FEMA Type | | |
| Chassis | 42 foot truck | Gateway/Repeater Equipped | Motorola MCC5500 | |
| Dispatch Capability | Yes - Mobile radios | SATCOM | Yes – Network and telephone | |
| No. of Phone/Data Lines | 5+ | Internet bandwidth | 1MB/s dedicated 3G Cellular | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 4 plus conference room | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes/over the air and satellite | Mast Height (If Applicable) | 35’ | |
| Radio Cache Equipped | No | <input type="checkbox"/> VHF Cache | <input type="checkbox"/> UHF Cache | <input type="checkbox"/> 700 MHz Cache |
| | | <input type="checkbox"/> 800 MHz Cache | <input type="checkbox"/> Dual-Band | <input type="checkbox"/> Other Cache |
| Communications Capabilities | | ✓ VHF-Low | ✓ VHF | ✓ UHF |
| | | <input type="checkbox"/> 700 MHz | ✓ 800 MHz | <input type="checkbox"/> Marine VHF |
| | | <input type="checkbox"/> Aircraft VHF | <input type="checkbox"/> Aircraft UHF | <input type="checkbox"/> Amateur HF |
| | | <input type="checkbox"/> Amateur VHF | <input type="checkbox"/> Amateur UHF | <input type="checkbox"/> Amateur Data |
| | | <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|------------------------|---|------------------|--|
| MCU Name | | MSP COMMAND POST #3 (CP3) | | |
| Responsible Agency | | Massachusetts State Police (MSP) | | |
| Location | | Framingham | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2121 | Activation Method | Phone Call | |
| Unit ID/Designator | CP 3 | Deployment Method | Driven | |
| Time to deploy/setup | 2 hours | FEMA Type | Type II | |
| Chassis | 36 foot truck | Gateway/Repeater Equipped | Motorola MCC5500 | |
| Dispatch Capability | Yes - mobile radios | SATCOM | No | |
| No. of Phone/Data Lines | 7+ | Internet bandwidth | 3G Cellular | |
| LAN Capability | Yes | WiFi Capability | Yes | |
| No. of Workstations | 4 plus conference room | Conference Area | Yes | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | 36 foot | |
| Radio Cache Equipped | No | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | |



Tactical Interoperable Communications Plan (TICP)

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|------------------------------------|--|--|---------------------|--|
| MCU Name | | MSP EMERGENCY COMMUNICATIONS RESTORATION VEHICLE (ERV) | | |
| Responsible Agency | | Massachusetts State Police (MSP) | | |
| Location | | Framingham | | |
| Area will respond to | | Statewide | | |
| 24 HR Phone | 508-820-2121 | Activation Method | Phone Call | |
| Unit ID/Designator | ERV | Deployment Method | Driven | |
| Time to deploy/setup | 4 hours | FEMA Type | | |
| Chassis | Freightliner M2 6 wheel (4WD) | Gateway/Repeater Equipped | Motorola Motobridge | |
| Dispatch Capability | Remote via PTP Link/Motobridge/Dispatch PC | SATCOM | No | |
| No. of Phone/Data Lines | None | Internet bandwidth | N/A | |
| LAN Capability | No | WiFi Capability | No | |
| No. of Workstations | None | Conference Area | None | |
| Video-Conferencing | No | On Scene Video Monitor | No | |
| Commercial TV Capability | No | Mast Height (If Applicable) | 42', 100' | |
| Radio Cache Equipped | 11 VHF; 11UHF XTS2500s | <input checked="" type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | |
| Communications Capabilities | | <input checked="" type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input checked="" type="checkbox"/> Other (microwave) | | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|-----------------------------|--------------------------|--|-------------------|
| MCU Name | | NEMLEC CP | |
| Responsible Agency | | Northeast Municipal Law Enforcement Council | |
| Location | | Lowell Regional Transit Authority, 115 Thorndike St. Lowell | |
| Area will respond to | | NEMLEC communities and outside via mutual aid request | |
| 24 HR Phone | 978-683-3168 | Activation Method | Phone call |
| Unit ID/Designator | NEMLEC CP | Deployment Method | Driven |
| Time to deploy/setup | 15 minutes once on scene | FEMA Type | Type III |
| Chassis | 42 feet | Gateway/Repeater Equipped | Raytheon ACU-1000 |
| Dispatch Capability | Yes | SATCOM | No |
| No. of Phone/Data Lines | 2 cellular / data lines | Internet bandwidth | 4G |
| LAN Capability | Yes | WiFi Capability | Yes |
| No. of Workstations | 10 | Conference Area | Yes |
| Video-Conferencing | Yes | On Scene Video Monitor | No |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | N/A |
| Radio Cache Equipped | Yes | <input type="checkbox"/> VHF Cache <input checked="" type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input checked="" type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | |



Tactical Interoperable Communications Plan (TICP)

| | | | |
|-----------------------------|---|---|---|
| MCU Name | NEMLEC IMT Van 1 | | |
| Responsible Agency | NEMLEC / Essex Sheriff's Department | | |
| Location | 20 Manning Rd, Middleton | | |
| Area will respond to | NEMLEC communities and outside via mutual aid request | | |
| 24 HR Phone | 978-683-3168 | Activation Method | Phone |
| Unit ID/Designator | NEMLEC IMT Van 1 | Deployment Method | Driven |
| Time to deploy/setup | 5 Minutes | FEMA Type | Type IV |
| Chassis | Ford Transit | Gateway/Repeater Equipped | No |
| Dispatch Capability | Yes (2) | SATCOM | None |
| No. of Phone/Data Lines | Yes | Internet bandwidth | 4G/5G FirstNet |
| LAN Capability | Yes | WiFi Capability | Yes |
| No. of Workstations | 2 | Conference Area | No |
| Video-Conferencing | Yes | On Scene Video Monitor | No |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | None |
| Radio Cache Equipped | <input type="checkbox"/> • VHF Cache <input type="checkbox"/> • 800 MHz Cache | <input checked="" type="checkbox"/> • UHF Cache <input type="checkbox"/> • Dual-Band | <input type="checkbox"/> • 700 MHz Cache <input type="checkbox"/> • Other Cache |
| Communications Capabilities | <input type="checkbox"/> • VHF-Low <input type="checkbox"/> • 700 MHz <input type="checkbox"/> • Aircraft VHF <input type="checkbox"/> • Amateur VHF <input type="checkbox"/> • Other | <input checked="" type="checkbox"/> • VHF <input checked="" type="checkbox"/> • 800 MHz <input type="checkbox"/> • Aircraft UHF <input type="checkbox"/> • Amateur UHF <input type="checkbox"/> • | <input checked="" type="checkbox"/> • UHF <input checked="" type="checkbox"/> • Marine VHF <input type="checkbox"/> • Amateur HF <input type="checkbox"/> • Amateur Data |



Tactical Interoperable Communications Plan (TICP)

| | | | | | |
|-----------------------------|--------------------------------------|--|------------|--|--|
| MCU Name | NERAC TOWER TRAILER - BEVERLY | | | | |
| Responsible Agency | Mass Task Force | | | | |
| Location | 43 Airport Rd. Beverly | | | | |
| Area will respond to | Statewide | | | | |
| 24 HR Phone | 978-922-5680 | Activation Method | Phone Call | | |
| Unit ID/Designator | TWR-1 | Deployment Method | Trailer | | |
| Time to deploy/setup | 15 Minutes | FEMA Type | IV | | |
| Chassis | | Gateway/Repeater Equipped | JPS-1000 | | |
| Dispatch Capability | N/A | SATCOM | N/A | | |
| No. of Phone/Data Lines | N/A | Internet bandwidth | N/A | | |
| LAN Capability | N/A | WiFi Capability | N/A | | |
| No. of Workstations | N/A | Conference Area | N/A | | |
| Video-Conferencing | N/A | On Scene Video Monitor | N/A | | |
| Commercial TV Capability | N/A | Mast Height (If Applicable) | 105 Ft | | |
| Radio Cache Equipped | N/A | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input checked="" type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | | |



Tactical Interoperable Communications Plan (TICP)

| | | | | | |
|-----------------------------|---|---|------------|--|--|
| MCU Name | NERAC TOWER TRAILER - FRAMINGHAM | | | | |
| Responsible Agency | Town of Framingham | | | | |
| Location | Framingham DPW | | | | |
| Area will respond to | Region Wide | | | | |
| 24 HR Phone | 508-532-6044 | Activation Method | Phone Call | | |
| Unit ID/Designator | TWR-2 | Deployment Method | Trailer | | |
| Time to deploy/setup | 15 Minutes | FEMA Type | IV | | |
| Chassis | | Gateway/Repeater Equipped | JPS-1000 | | |
| Dispatch Capability | N/A | SATCOM | N/A | | |
| No. of Phone/Data Lines | N/A | Internet bandwidth | N/A | | |
| LAN Capability | N/A | WiFi Capability | N/A | | |
| No. of Workstations | N/A | Conference Area | N/A | | |
| Video-Conferencing | N/A | On Scene Video Monitor | N/A | | |
| Commercial TV Capability | N/A | Mast Height (If Applicable) | 105' | | |
| Radio Cache Equipped | N/A | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache | | | |
| | | <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | | |
| Communications Capabilities | | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input checked="" type="checkbox"/> UHF | | | |
| | | <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input checked="" type="checkbox"/> Marine VHF | | | |
| | | <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF | | | |
| | | <input checked="" type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data | | | |
| | | <input type="checkbox"/> Other | | | |



Tactical Interoperable Communications Plan (TICP)

| | | | | | |
|-----------------------------|--|---|-------------|--|--|
| MCU Name | NEWTON 610 | | | | |
| Responsible Agency | NEWTON POLICE | | | | |
| Location | 1321 Washington St, Newton, MA | | | | |
| Area will respond to | As Needed | | | | |
| 24 HR Phone | 617-796-2100 | Activation Method | Phone Call | | |
| Unit ID/Designator | 610 | Deployment Method | Driven | | |
| Time to deploy/setup | 1-2 Hours | FEMA Type | Type III | | |
| Chassis | 45 feet | Gateway/Repeater Equipped | Yes | | |
| Dispatch Capability | Yes | SATCOM | N/A | | |
| No. of Phone/Data Lines | NA | Internet bandwidth | 3G Wireless | | |
| LAN Capability | Cellular Wireless | WiFi Capability | N/A | | |
| No. of Workstations | 3 | Conference Area | Yes | | |
| Video-Conferencing | No | On Scene Video Monitor | Yes | | |
| Commercial TV Capability | Yes | Mast Height (If Applicable) | N/A | | |
| Radio Cache Equipped | | <input type="checkbox"/> VHF Cache <input type="checkbox"/> UHF Cache <input type="checkbox"/> 700 MHz Cache <input type="checkbox"/> 800 MHz Cache <input type="checkbox"/> Dual-Band <input type="checkbox"/> Other Cache | | | |
| Communications Capabilities | ACU-1000 on board Local repeater for Newton Tac 1 | <input type="checkbox"/> VHF-Low <input checked="" type="checkbox"/> VHF <input type="checkbox"/> UHF <input type="checkbox"/> 700 MHz <input checked="" type="checkbox"/> 800 MHz <input type="checkbox"/> Marine VHF <input type="checkbox"/> Aircraft VHF <input type="checkbox"/> Aircraft UHF <input type="checkbox"/> Amateur HF <input type="checkbox"/> Amateur VHF <input type="checkbox"/> Amateur UHF <input type="checkbox"/> Amateur Data <input type="checkbox"/> Other | | | |



Appendix G Regional Communications Unit Professionals

There are several certified communication professionals within the state's Communication Unit (COMU); many are in the NERAC region. The Statewide Interoperability Coordinator (SWIC) maintains a database of FEMA credentialed positions including:

- COMC
- COML
- COMT
- ITSL
- INCM
- RADO
- TERT
- THSP

Should a community need have an immediate need for a credentialed member, they can obtain it through the following ways:

Urgent Need:

Contact MEMA State Control at 508-820-2000 or MSP GHP Dispatch at 508-820-2121

Non-Urgent Need:

Contact the SWIC at MA.SWIC@mass.gov



Appendix H HAM Radio Resources

Amateur Radio Contact Information

*For more information contact Terry Stader (MEMA Region-1 RACES, 978-490-8150, ka8scp@wb1gof.org)

SHARES & Military Affiliate Stations

Massachusetts Task Force One (FEMA US&R)

Mark Foster, WA1PNW
43 Airport Road
Beverly, MA 01915
SHARES (KPC314), RACES
Operations Phone: 978-922-5680
Email: mfoster@matf.org

Charles Rocheleau, W1CPR
12 Woodland Avenue
Saugus, MA 01906
Massachusetts Task Force 1 (MA-TF1 FEMA US&R)
FEMA Communications Specialist, SHARES (NNA1WT) & Air Force MARS operator
HF Pactor P4 capabilities
Email: w1cpr@protonmail.com

George Johnson, W1ZT
Washington Street
Beverly, MA
Air Force MARS operator, SHARES
Email: w1zt.ham@comcast.net

ARRL (American Radio Relay League) Leadership

ARRL Section Emergency Coordinator

Rob Macedo, KD1CY
50 Mandell Street
New Bedford, MA 02740
Home Phone #: (508) 994-1875
Home/Data #: (508) 997-4503
Cell Phone #: 508-259-9213
Email: kd1cy.rob@gmail.com

ARRL Section Manager

Tom Walsh, K1TW
9 Wildwood Drive
Bedford, MA 01730
Tel: 781-275-5882
Email: k1tw@arrl.org



Bristol and Plymouth Counties:

Michael Leger, N1YLQ
641 Middle Road
Acushnet, MA 02743
Tel: 386-566-7666
Email: michael.leger@comcast.net

Phil McNamara, N1XTB
PO Box: 687
Middleborough, MA 02346-0687
Tel: 508-509-4309
Email: N1XTB@powersrvcs.com

Cape and Islands, DEC

Frank O'Laughlin, WQ1O
PO Box 233
Marstons Mills, MA 02648
Tel: 508-280-8810
Email: wq1o@comcast.net

Cape and Islands, Assistant DEC

Henry Brown, K1WCC
19 Sao Paulo Drive
East Falmouth, MA 02536
Falmouth, MA Emergency Coordinator
Tel: 508-540-0753 / Mobile: 774-392-1158
Email: k1wcc@comcast.net

Essex County

Jim Palmer, KB1KQW
24 Highland Street
Peabody, MA 01960
Tel: 978-609-0967
Email: kb1kqw@nsradio.org

Middlesex County

Alan H. Martin, W1AHM
31 Meadow Ln.
Westford, MA 01886-1257
Tel: 978-692-9427
Email: AMartin.MA.UltraNet@RCN.Com

Middlesex County

Tim Miranda, W1MWS
21 Beech Street
North Chelmsford, MA 01863
Tel: 617-331-9108
Email: w1mws@winlink.org



Norfolk County

Stu Solomon, W1SHS
1 Old Carriage Lane
Franklin, MA 02038
Tel: 508-951-7190
Email: w1shs@arri.net

MEMA RACES Program

***Region-1 RACES Radio Officer:**

Terry Stader, KA8SCP
2A Old Colony Drive
Westford, MA 01886
Tel: 978-490-8150
Email: ka8scp@wb1gof.org

Region-2 RACES Radio Officer:

Michael Leger, N1YLQ
641 Middle Road
Acushnet, MA 02743
Tel: 386-566-7666
Email: michael.leger@comcast.net

Region-3 RACES Radio Officer:

Frank Morrisino, K1LMY
36 Lori Lane
East Longmeadow, MA 01028
Tel: 413-525-7620 / Mobile: 413-478-7157
Email: fpmjelm@aol.com



Appendix I MOUs, MOAs and Associated Forms

I.1 FIRE CONTROL POINT MOU

***Abstract from NERAC Fire Control Point SOG. Please read the Northeast Region Fire Control Points Standard Operating Guidelines for District 5, 6, 14, and 15 for complete details.**

SECTION II MUTUAL AID AGREEMENT

Members of Essex and Middlesex County Fire Districts (5, 6, 14, & 15) have entered into a mutual aid agreement with their respective district; this establishes under Massachusetts General Law Chapter 48, Section 59A the legal basis for Mutual Aid among the District communities and the basis for its' operating plan. This agreement, signed by the Chiefs of each Department and the community's Executive Officer, is self-perpetuating for twenty years and supersedes all other such agreements among the communities involved.

The purpose of the Fire District system is to supply and control Mutual Aid support among its member communities for any emergency. The system has been designed to maintain flexibility and local autonomy, yet to provide a resource base that will ensure that when any member community needs assistance, that assistance will be provided. The basis of that system is a resource rotation system based on approximately one third of each community's apparatus being available for Mutual Aid; both to provide adequate mutual aid and local coverage. All communities are required to provide no less than one company for membership in the system.

Nothing in this policy prevents the operational short-term use of "unable to respond" or "zero availability" due to activity or temporary conditions.

Nothing in this policy should be construed to read that mutual aid is matching or directly reciprocal; availability is defined as an overall system requirement.

Note that the District agreement is the Legal Mutual Aid Agreement Covering All Mutual Aid At All Alarm Levels, and unless other written annual agreements are maintained between you and other communities, it is your legal basis for mutual aid.



SECTION V: 03

Radio use by other communities

The Essex County Mutual Aid Committee, District 6, & 14 Mutual Aid Committees have approved the following policy regarding the use of the District Radio mutual aid coordination frequency 460.1375 and 154.0700 MHz (District 5 and 15 Operations) and 460.0375MHz (District 6 Operations).

1. Any non-approved communities with permission from the Essex County Fire Chiefs Association (ECFCA) or District 6 Mutual Aid Committee that is involved with mutual aid to or from a District community.
2. Usage of the radio is limited to mutual aid communications of an emergency nature with District communities or apparatus.
3. Any outside communities will not be included in the District radio and availability test.
4. Usage will be limited to mobiles and portables.
5. Any outside communities must obtain proper license for the operation of its radios, and follow the normal coordination procedure.
6. ECFCA and District 6 Mutual Aid Committees both recommend that all fire districts adopt similar policies for the use of their frequencies by adjacent communities as an aid to improved mutual aid and/or task force communications.



I.2 REGION III EMS MUTUAL AID CHANNEL MOU

This memorandum of agreement between Northeast Emergency Medical Services (Region III) and its CMED Operations Center and _____, shall allow for the utilization of the Region III EMS Mutual Aid Channel according to the guidelines set forth in the utilization policy. This channel shall provide for interoperable radio communications between EMS communications centers, Northeast CMED, and the regional fire and police control centers.

By executing this agreement, _____ agrees to abide by the utilization policy and procedures established by Northeast CMED to contact their control center, and vice versa, via the Essex County UHF repeated channel currently in use by the districts for fire mutual aid communications.

Northeast EMS will also allow the District 5 and 15 fire control centers to contact Northeast CMED on a pre-determined med channel via the console radio installed in the control center.

This reciprocal agreement shall be in effect on the date of execution by both parties and will remain in effect until such time that the agreement is amended or revoked by either party. This agreement may be revoked at anytime with written notification to both parties.



I.3 BAPERN POLICY AND PROCEDURE

***Taken from BAPERN Policy and Procedure dated 11/15/2011**

Definitions:

Greater Boston Police Council (GBPC) – A consortium of approximately 300 law enforcement and public safety agencies from across the Commonwealth of Massachusetts and other New England states. The “backbone” of the GBPC is the Boston Area Police Emergency Radio Network (BAPERN), which was designed, built, and maintained by the GBPC. In addition to overseeing the BAPERN system, the GBPC offers simulation-based incident command system training programs that provide police personnel with the special organizational skills and decision making abilities necessary for managing a critical incident. In partnership with the Metropolitan Area Planning Council (MAPC), the GBPC also administers a cooperative purchasing program for items such as police cruisers, medium and heavy duty trucks, motorcycles, hybrid vehicles, and numerous other industry specific commodities.

Boston Area Police Emergency Radio Network (BAPERN) – The communications element of the GBPC, providing regional and inter-departmental communication capability to 140 federal, state, local and private member public safety agencies (herein after referred to as “M.A.”). BAPERN was conceived and implemented in the early 1970’s after a series of large scale incidents occurred in Cambridge and Chelsea that highlighted the inability of police officers from many responding agencies from communicating with each other on scene. It was the lack of interoperability that highlighted the need for one radio system that could be utilized by all area law enforcement agencies. Today, it is the only regional public safety inter-operational radio system in Eastern Massachusetts used on a daily basis for interagency communications, and the only system capable of both wide-area and district-wide interoperable radio communications during an emergency incident.

Policy:

It is the policy of the Greater Boston Police Council to provide and maintain a reliable and effective radio communication system for its M.A., capable of interagency communications on both a wide-area and district-wide mode.



I.4 NERAC EQUIPMENT CACHE RULES FOR BORROWING

The most up to date information on the NERAC Equipment Cache borrowing policies and procedures can be found at <https://nerac.us/cache-sites/>.



Appendix J Glossary

| Item/Acronym | Definition |
|------------------|--|
| ACU-1000 | Audio bridge used in fixed and mobile configurations. Requires radio from each connected communications system. Gateway device used to link disparate radio systems. |
| ARES | Amateur Radio Emergency Services |
| Audio Bridge | Connects four-wire audio from disparate radio systems to provide interoperability. |
| BAPERN | Boston Area Police Emergency Radio Network |
| CAM | Communication Assets Mapping |
| CAS | Communication Assets Survey |
| CASM | Communication Assets Survey and Mapping |
| CMED | Central Medical Emergency Direction |
| COMC | Communications Coordinator |
| COML | Communications Unit Leader |
| COMT | Incident Communications Technician |
| Console Patching | Ability to connect channels via dispatch consoles |
| CP | Command Post |
| DCR | Department of Conservation and Recreation |
| DFS | Department of Fire Services |
| DHS | Department of Homeland Security |
| DMAT | Disaster Medical Assistance Team |
| EMS | Emergency Medical Services |
| EOC | Emergency Operations Center |
| ERV | Emergency Communications Restoration Vehicle |
| ESF | Emergency Support Function |
| FCC | Federal Communication Commission |
| FEMA | Federal Emergency Management Agency |
| IC | Incident Command |
| ICALL | Calling Channel for ITAC |
| ICC | Incident Communications Center |
| ICP | Incident Command Post |
| ICS | Incident Command System |
| ICTAP | Interoperable Communications Technology Assistance Program |
| ID | Identification |
| INCM | Incident Communications Center Manager |
| Inter-agency | Located or occurring between two or more agencies |
| Interoperable | Ability of a system to use the parts or equipment of another system |
| IT | Information Technology |
| ITAC | Conventional mutual aid channel 800 Mhz |
| kHz | Kilohertz |
| LMR | Land Mobile Radio |
| LPS | Local Public Safety (Talkgroup) |



| | |
|-------------------|---|
| MA ARNG | Massachusetts Army National Guard |
| MATF | Massachusetts Task Force |
| MCC | Mobile Communicaiton Center |
| MCST | Mobile Communications Support Trailer |
| MCU | Mobile Communications Unit |
| MEMA | Massachusetts Emergency Management Agency |
| MEOPSS | Massachusetts Executive Office of Public Safety and Security |
| MEP | Massachusetts Environmental Police |
| METROLEC | Metropolitan Law Enforcement Council |
| MHz | Abbreviation for megahertz. 5 MHz = 5,000,000 Hz or 5,000 kHz. |
| MIFOG | Massachusetts Interoperability Field Operations Guide |
| MOA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MSP | Massachusetts State Police |
| Mutual Aid | Personnel, equipment, or services provided to another jurisdiction |
| NEMLEC | Northeast Massachusetts Law Enforcement Council |
| NERAC | Northeast Homeland Security Regional Advisory Council |
| NIMS | National Incident Management System |
| NPSPAC | National Public Safety Planning Advisory Committee |
| NRF | National Response Framework |
| NSSE | National Special Security Event |
| POC | Point of Contact |
| RACES | Radio Amateur Civil Emergency Service |
| RADO | Radio Operator |
| RF | Radio Frequency |
| SEOC | State Emergency Operations Center |
| SHARES | Shared Resources High Frequency Radio Program |
| SOP | Standard Operating Procedure |
| Talkgroup | Term ususally used with trunked radio systems. A talkgroup is a predefined list of radios/users assigned a unique ID which allows them to communicate with each other over the trunked radio system. |
| THSP | Technical Specialist |
| TICP | Tactical Interoperable Communications Plan |
| TRS | Trunked Radio Systems |
| UASI | Urban Areas Security Initiative |
| UHF | Ultra High Frequency – Range of 300 to 3,000 MHz For public safety LMR, usually refers to two bands. 380 to 460 MHz (low) and 460 to 512 MHz (high). |
| USCG | United States Coast Guard |
| VHF | Very High Frequency – For public safety LMR, usually refers to VHF High Band with a range of 136 to 164 MHz. VHF Low Band has a frequency range below 100 MHz. |
| VOAD | Volunteer Organization Active in Disaster |

ICS 205 Form

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

| | | | | | | | | | | | |
|---|------|----------|---|--|----------------|------------------|----------------|--|-------------------|---------|--|
| 1. Incident Name: | | | | 2. Date/Time Prepared: Date: Time: | | | | 3. Operational Period: Date From: Date To: Time From: Time To: | | | |
| 4. Basic Radio Channel Use: | | | | | | | | | | | |
| Zone Grp. | Ch # | Function | Channel Name/Trunked Radio System Talkgroup | Assignment | RX Freq N or W | RX Tone/NAC | TX Freq N or W | TX Tone/NAC | Mode (A, D, or M) | Remarks | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 5. Special Instructions: | | | | | | | | | | | |
| 6. Prepared by (Communications Unit Leader): Name: _____ Signature: _____ | | | | | | | | | | | |
| ICS 205 | | | IAP Page _____ | | | Date/Time: _____ | | | | | |

Appendix L Massachusetts Tactical Channel Plan (VHF/UHF/700/800 MHz Programming Template)

The Commonwealth of Massachusetts has developed the Massachusetts Tactical Channel Plan (MTCP). The most recent version can be found at: <https://www.mass.gov/statewide-office-of-public-safety-interoperability> under "Documents." See below for more information.



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

The Commonwealth of Massachusetts Executive Office of Public Safety and Security

One Ashburton Place, Room 2133

Boston, Massachusetts 02108

Tel: (617) 727-7775

TTY Tel: (617) 727-8618

Fax: (617) 727-4764

www.mass.gov/eopss

TERRENCE M. REIDY
Secretary

Statewide Interoperability Office **Massachusetts Tactical Channel Plan – MTCP (v.3 2022)**

The 2022 version of the MTCP includes all channels and talk-groups used for public safety interoperability, command/control, and coordination throughout the Commonwealth of Massachusetts, and the United States.

MTCP programming is a long-standing public safety best practice and is an **SIEC requirement for all subscribers purchased using any state or federal grant funding**. Failing to do so creates an unnecessary barrier to public safety interoperability. Uniform standard programming of all agency subscribers with common channels, nomenclature, and naming conventions is also a public safety best practice, regardless of funding sources.

All channels and talk-groups must appear in the exact order listed in each zone for each of the respective band(s) that the subscriber unit is capable of. *Agencies are always free to add additional agency specific zones / channels to their subscriber units based on their operational need and may duplicate select channels in other zones so long as the MTCP zones are added at a minimum as shown.*

If the subscriber has limited channel and/or talk-group capacity not capable of loading a specific zone or channel, the Statewide Interoperability Coordinator (SWIC) should be consulted at MA.SWIC@Mass.gov

State 7/800MHz CoMIRS programming information and guidance, including system ID, talk-group authorizations, etc. will be provided by CoMIRS by contacting CoMIRS@Mass.gov

Additional information can be found in the National Interoperability Field Operations Guide (NIFOG), the Massachusetts Interoperability Field Guide (MIFOG), and the EOPSS / SIO Public Safety Best Practices Bulletin.

Contact the Massachusetts Statewide Interoperability Coordinator for links to additional copies of the MTCP or for copies of the other documents referred to here and more information or guidance at MA.SWIC@mass.gov.

*Richard Fiske, Statewide Interoperability Coordinator
Massachusetts Executive Office of Public Safety and Security*

Appendix M

Public Safety Encryption Guidance Bulletin



CHARLES D. BAKER

Governor

KARYN E. POLITO

Lt. Governor

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THOMAS A. TURCO, III

Secretary

Guidance Bulletin #20-1

Public Safety Agency Encryption

The following informational bulletin provides basic guidance to public safety agencies on the encryption of land mobile radio (LMR) equipment. This bulletin does not mandate the use of encryption, or the sharing of encryption keys. Instead, the goal is to encourage encryption coordination among local, regional and federal agencies. Additionally, this guidance helps standardize and ensure interoperable use of LMR encryption in the Commonwealth.

Agency administrators should ask "Who are we intending to secure our communications from?" and choose an encryption standard that accomplishes this goal by being secure and meeting P25 digital standards. There are no compliant forms of analog encryption. Here are three areas to consider when planning encryption deployment and equipment programming.

Purchasing Guidelines

Agencies should ensure the following minimum purchase requirements are met:

- LMR equipment should support a minimum encryption type of **AES-256**. Older standards, or proprietary algorithms (ex: ADP, DES), are not recommended for public safety, and do not meet P25 standards or grant requirements.
- LMR equipment should support more than one encryption key (often referred to as "multikey").

CKR/SLN and KID/LID Assignments

To avoid encryption key conflict, agencies should:

- Prohibit the use of CKR/SLN #'s 1 through 20. These are reserved for nationwide interoperability.
- Each KID/LID should be a randomly generated hexadecimal code between 0001 - FFFF OR agency may choose to use the CKR/SLN number.
- Contact the SWIC for all CKR/SLN assignments. This applies to all algorithm types. **EOPSS does not record, nor will it request your "key data". The sharing of keys is at the discretion of the home agency.
- Consider the use of common encryption keys to ensure interoperability with neighboring agencies/partners.

Channel Programming

- "Strapped" encrypted channels / zones are recommended as opposed to a "clear / coded" switch.
- Agencies shall ensure that their LMR equipment has zones / banks that include and conform explicitly with the Massachusetts Tactical Channel Plan (MTCP). The most current version of the MTCP is available through the SWIC.

For further guidance and information about encryption, or for any questions regarding this bulletin, please contact the Commonwealth's Statewide Interoperability Coordinator (SWIC) at ma.swic@mass.gov.

Appendix N Interoperable Communications Emergency Best Practices Guidelines



Commonwealth of Massachusetts Executive Office of Public Safety and Security



Statewide Interoperability Coordinator Office *Guidance Bulletin #22-1*

Massachusetts Interoperable Emergency Communications Best Practices

This document is intended to provide minimum standard "quick reference guidelines" for public safety communications best practices in Massachusetts, for public safety communications users and officials, system owners / managers, radio technicians, vendors, and subscriber programmers. This guideline is intended to assist with development of agency policy and procedures with regard to their communications and interoperable resource utilization and planning.

Best Practice #1 – All Radios Programmed in Accordance with Massachusetts Tactical Channel Plan (MTCP) and Device Management

A Common set of National, State and Regional Radio Interoperability Channels with standard designated names, frequencies, and technical information is published in the Massachusetts Tactical Channel Plan (MTCP) by frequency band. These interoperability templates shall be programmed as published without modification in all emergency communications assets and subscriber units capable of such programming. All common user equipment should be programmed with the same incident communication channels, including identical use of channel name, zone, and channel location within the zone, and other technical parameters. Management of interoperability resources and radio devices should include a formal plan that ensures accurate radio programming and confirms the readiness of the equipment. This includes mobile and portable devices, as well as cache radio resources.

Best Practice #2 – Radios and Systems are P25 Digital Compliant

Any state or federal funding that requires P25 technology compliance as a purchasing provision shall comply with all P25 standards and grant requirements. All applicable P25 features must be enabled upon receipt. As a matter of conserving precious RF spectrum, system owners shall consider moving toward a P25 digital platform. Furthermore, no municipal or state entity shall purchase a radio system upgrade using state or federal funds without first submitting an Interoperable Communications Investment Proposal (ICIP) to the SWIC and / or SIEC for guidance. Regardless of the funding source, it is a best practice that all equipment procured / obtained by public safety agencies have the same P25 capability and programming compliance agency wide. To do otherwise creates an unnecessary barrier to interoperability.

Best Practice #3 – Radio Encryption

The use of voice encryption on designated interoperability and mutual aid channels can create obstacles to interoperability and is highly discouraged. In the event encryption is deemed necessary due to unique operational needs, it must follow existing FCC regulations, and comply with the Massachusetts Public Safety Encryption Guidance Bulletin, as amended. Use of encryption on the National Interop channels is prohibited by FCC regulation.

Best Practice #4 – Interoperability Systems Change Management Practices

Change Management Policies, and compliance with unified agreements on Change management practices should always be used to ensure that any changes to operational policies, system modifications, additions, or deletions of interoperability system infrastructure are communicated to all affected agencies and the SWIC. This Best Practice is arguably the most complicated, because it requires committed participation from multiple consortiums in Massachusetts but is a critical mainstay in assuring that interoperable radio systems function as expected.

Best Practice #5 – Training/Proficiency in the Access and Usage of Interoperability Systems and Resources

Radio Interoperability equipment and systems should be used and managed only by personnel who have been properly trained, and who have demonstrated proficiency with the appropriate technical, operational, and procedural aspects. This Best Practice applies to technicians, responders, telecommunicators, managers, and private radio shops under contract to local or state government agencies and includes both operational and interoperability issues.

Best Practice #6 - Infrastructure Management and Relationships

The management of interoperability infrastructure should ensure its readiness, reliability, and resiliency, and the provision of failure notification and availability status of frequencies and sites. Active monitoring of radio systems functionality including established troubleshooting reports, current contacts, and procedures for alerting technical and maintenance personnel and valid maintenance contracts. Formal relationships must be created to govern and manage interoperability resources. Usage documents must be established, and memorandums of understanding developed, by working cohesively with all invested parties.

Best Practice #7 - Channel Assignment Based on Infrastructure Coverage

Interoperability channels should be assigned based on the documented and known infrastructure coverage between the radio networks and the radio communication devices that are being utilized. The MIFOG and MTCP plan, used in conjunction with the guidance and direction from the Massachusetts SWIC and the MA-COMU members, will serve as the guiding tool for channel assignments. Use of managed systems will be assigned by system managers in conjunction with this coordination and guidance.

Best Practice #8 - After Action Reviews

After Action Review (AAR) should be held following a significant emergency incident or preplanned event that involved interoperability resources, and should include both operational and technical components, including those which focus on communications infrastructure. Including MA-COMU personnel in this is vital to the process, as they can bring technical feedback to the discussions.

Best Practice #9 - Deployment of Interoperability Resources

In any incident or event there must be an early awareness of the need for augmented communications support, at the scene and in the communications center, to include both interoperability resources, and supplemental technical and support staff. Notification of such needs should be made to the SWIC, or State EOC ESF-2 personnel, or MA-COMU member as soon as practical for both planned and unplanned / emergent events.

Best Practice #10 – Interoperability Resource Information – Storage and Access

Information on available interoperability resources and communications plans in any given area should be documented and maintained in a central location for immediate access by first responders and PSAP personnel. The MIFOG, MTCP, SCIP, CASM, and other regional databases are primary resources.

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Contact the Statewide Interoperability Coordinator at MA.SWIC@Mass.gov regarding this bulletin or for further guidance.

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Credit/REF: SAFECOM, NCSWIC, NIFOG, MIFOG, MTCP, SIEC Best Practice working group.